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REF



626480578



Geotechnical  
Environmental and  
Water Resources  
Engineering

RTN 3-23246

Volume 2: Appendices

**Immediate Response Action Status  
Report No. 6 and Remedial  
Monitoring Report No. 9**

50 Tufts Street, Somerville, Massachusetts

**RECEIVED**

NOV 14 2008

DEP  
NORTHEAST REGIONAL OFFICE

Submitted to:  
**UniFirst Corporation**  
68 Jonspin Road  
Wilmington, MA 01887

Prepared by:  
**GEI Consultants, Inc.**  
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Woburn, MA 01801  
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November 10, 2008  
Project No. 04516-3

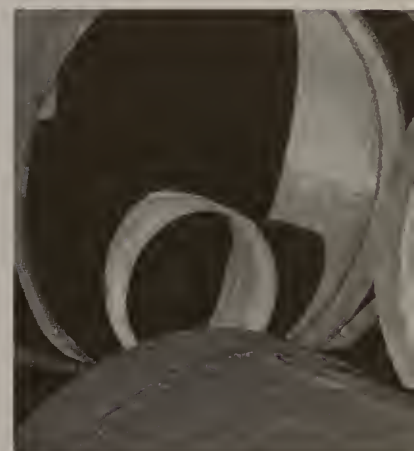
Ileen S. Gladstone, P.E., LSP, LEED AP  
Vice President







Geotechnical  
Environmental  
Water Resources  
Ecological





## Appendix A

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### DEP Transmittal Forms BWSC-105, BWSC-105A, and BWSC-105B and e-DEP Transmittal Receipts

#### BWSC-105 IRA Transmittal Form

#### IRA Remedial Monitoring Report Transmittal Forms:

- BWSC-105A 1 of 4 (Capuano)
- BWSC-105B 1 of 4 (Capuano)
- BWSC-105A 2 of 4 (Residences)
- BWSC-105A 3 of 4 (50 Tufts-SSDS)
- BWSC-105B 3 of 4 (50 Tufts-SSDS)
- BWSC-105A 4 of 4 (50 Tufts-SVE)
- BWSC-105B 4 of 4 (50 Tufts-SVE)





Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL  
FORM**

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3

-

23246

**A. RELEASE OR THREAT OF RELEASE LOCATION:**

1. Release Name/Location Aid: **50 TUFTS ST & PROP ACROSS THE ST**

2. Street Address: **50 TUFTS ST**

3. City/Town: **SOMERVILLE**

4. ZIP Code: **021454129**

5. UTM Coordinates: a. UTM N: **4694322** b. UTM E: **328049**

☐ 6. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.

☐ a. Tier IA ☐ b. Tier IB ☒ c. Tier IC ☐ d. Tier II

☐ 7. Check here if this location is Adequately Regulated, pursuant to 310 CMR 40.0110-0114. Specify Program (check one):

☐ a. CERCLA ☐ b. HSWA Corrective Action ☐ c. Solid Waste Management  
☐ d. RCRA State Program (21C Facilities)

**B. THIS FORM IS BEING USED TO:** (check all that apply)

1. List Submittal Date of Initial IRA Written Plan (if previously submitted): **1/9/2006**

(mm/dd/yyyy)

☐ 2. Submit an **Initial IRA Plan**.

☐ 3. Submit a **Modified IRA Plan** of a previously submitted written IRA Plan.

☐ 4. Submit an **Imminent Hazard Evaluation**. (check one)

- ☐ a. An Imminent Hazard exists in connection with this Release or Threat of Release.  
☐ b. An Imminent Hazard does not exist in connection with this Release or Threat of Release.  
☐ c. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release, and further assessment activities will be undertaken.  
☐ d. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release. However, response actions will address those conditions that could pose an Imminent Hazard.

☐ 5. Submit a request to **Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard**.

☒ 6. Submit an **IRA Status Report**.

☒ 7. Submit a **Remedial Monitoring Report**. (This report can only be submitted through eDEP.)

a. Type of Report: (check one) ☐ i. Initial Report ☒ ii. Interim Report ☐ iii. Final Report

b. Frequency of Submittal: (check all that apply)

- ☐ i. A Remedial Monitoring Report(s) submitted monthly to address an Imminent Hazard.  
☐ ii. A Remedial Monitoring Report(s) submitted monthly to address a Condition of Substantial Release Migration.  
☒ iii. A Remedial Monitoring Report(s) submitted concurrent with a IRA Status Report.

c. Number of Remedial Systems and/or Monitoring Programs: **4**

A separate BWSC105A, IRA Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.





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BWSC105

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Release Tracking Number

3

-

23246

**B. THIS FORM IS BEING USED TO (cont.):** (check all that apply)

☐ 8. Submit an **IRA Completion Statement**.

☐ a. Check here if future response actions addressing this Release or Threat of Release notification condition will be conducted as part of the Response Actions planned or ongoing at a Site that has already been Tier Classified under a different Release Tracking Number (RTN). When linking RTNs, rescoring via the NRS is required if there is a reasonable likelihood that the addition of the new RTN(s) would change the classification of the site.

b. Provide Release Tracking Number of Tier Classified Site (Primary RTN):

-

These additional response actions must occur according to the deadlines applicable to the Primary RTN. Use the Primary RTN when making all future submittals for the site unless specifically relating to this Immediate Response Action.

☐ 9. Submit a **Revised IRA Completion Statement**.

(All sections of this transmittal form must be filled out unless otherwise noted above)

**C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT IRA:**

1. Identify Media Impacted and Receptors Affected: (check all that apply)

- ☒ a. Air ☒ b. Basement ☒ c. Critical Exposure Pathway ☒ d. Groundwater ☒ e. Residence  
☐ f. Paved Surface ☐ g. Private Well ☐ h. Public Water Supply ☒ i. School ☐ j. Sediments  
☐ k. Soil ☐ l. Storm Drain ☐ m. Surface Water ☐ n. Unknown ☐ o. Wetland ☐ p. Zone 2  
☐ q. Others Specify: \_\_\_\_\_

2. Identify Oils and Hazardous Materials Released: (check all that apply)

- ☐ a. Oils ☒ b. Chlorinated Solvents ☐ c. Heavy Metals  
☐ d. Others Specify: \_\_\_\_\_

**D. DESCRIPTION OF RESPONSE ACTIONS:** (check all that apply, for volumes list cumulative amounts)

- |  |   |
|--|---|
| <input type="checkbox"/> 1. Assessment and/or Monitoring Only                | <input type="checkbox"/> 2. Temporary Covers or Caps                        |
| <input type="checkbox"/> 3. Deployment of Absorbent or Containment Materials | <input type="checkbox"/> 4. Temporary Water Supplies                        |
| <input type="checkbox"/> 5. Structure Venting System                         | <input type="checkbox"/> 6. Temporary Evacuation or Relocation of Residents |
| <input type="checkbox"/> 7. Product or NAPL Recovery                         | <input type="checkbox"/> 8. Fencing and Sign Posting                        |
| <input type="checkbox"/> 9. Groundwater Treatment Systems                    | <input checked="" type="checkbox"/> 10. Soil Vapor Extraction               |
| <input type="checkbox"/> 11. Bioremediation                                  | <input type="checkbox"/> 12. Air Sparging                                   |



Massachusetts Department of Environmental Protection  
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BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL  
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3

-

23246

**D. DESCRIPTION OF RESPONSE ACTIONS (cont.):** (check all that apply, for volumes list cumulative amounts)

☒ 13. Excavation of Contaminated Soils

☒ a. Re-use, Recycling or Treatment

☐ i. On Site Estimated volume in cubic yards \_\_\_\_\_

☒ ii. Off Site Estimated volume in cubic yards 80

ii.a. Receiving Facility: STABLEX; QUEBEC, CANADA Town: BOSTON State: MA

ii.b. Receiving Facility: AMERICAN RECLEMATION Town: CHARLTON State: MA

iii. Describe: \_\_\_\_\_

☐ b. Store

☐ i. On Site Estimated volume in cubic yards \_\_\_\_\_

☐ ii. Off Site Estimated volume in cubic yards \_\_\_\_\_

ii.a. Receiving Facility: \_\_\_\_\_ Town: \_\_\_\_\_ State: \_\_\_\_\_

ii.b. Receiving Facility: \_\_\_\_\_ Town: \_\_\_\_\_ State: \_\_\_\_\_

☐ c. Landfill

☐ i. Cover Estimated volume in cubic yards \_\_\_\_\_

Receiving Facility: \_\_\_\_\_ Town: \_\_\_\_\_ State: \_\_\_\_\_

☐ ii. Disposal Estimated volume in cubic yards \_\_\_\_\_

Receiving Facility: \_\_\_\_\_ Town: \_\_\_\_\_ State: \_\_\_\_\_

☒ 14. Removal of Drums, Tanks or Containers:

a. Describe Quantity and Amount: 11 - 55-GALLON DRUMS OF WATER 06 - 55-GALLON DRUMS OF SOLIDS

b. Receiving Facility: GENERAL CHEMICAL Town: FRAMINGHAM State: MA

c. Receiving Facility: \_\_\_\_\_ Town: \_\_\_\_\_ State: \_\_\_\_\_

☒ 15. Removal of Other Contaminated Media:

a. Specify Type and Volume: SPENT GRANULAR ACTIVATED CARBON - 28,793 LBS

b. Receiving Facility: RINECO Town: BENTON State: AR

c. Receiving Facility: \_\_\_\_\_ Town: \_\_\_\_\_ State: \_\_\_\_\_

☒ 16. Other Response Actions:

Describe: EXPOSURE PATHWAY ELIMINATION MEASURES (EPEMS)/TEMP AIR PURIFIERS AND/OR SSDS

☐ 17. Use of Innovative Technologies:

Describe: \_\_\_\_\_





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BWSC105

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL  
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Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3 - 23246

E. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> if Section B of this form indicates that an **Immediate Response Action Plan** is being submitted, the response action(s) that is(are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is(are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that an **Imminent Hazard Evaluation** is being submitted, this Imminent Hazard Evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and the assessment activity(ies) undertaken to support this Imminent Hazard Evaluation comply(ies) with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000;

> if Section B of this form indicates that an **Immediate Response Action Status Report** and/or a **Remedial Monitoring Report** is(are) being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> if Section B of this form indicates that an **Immediate Response Action Completion Statement** or a request to **Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard** is being submitted, the response action(s) that is(are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is(are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 9719

2. First Name: ILEEN S

3. Last Name: GLADSTONE

4. Telephone: 7817214012

5. Ext.:

6. FAX:

7. Signature: Ileen S Gladstone

8. Date: 11/10/2008

(mm/dd/yyyy)

9. LSP Stamp:







Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105

**IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL  
FORM** Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3

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23246

**F. PERSON UNDERTAKING IRA:**

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person undertaking response actions
2. Name of Organization: **UNIFIRST CORP**
3. Contact First Name: **JOHN R** 4. Last Name: **BADEY**
5. Street: **68 JONSPIN RD** 6. Title:
7. City/Town: **WILMINGTON** 8. State: **MA** 9. ZIP Code: **018870000**
10. Telephone: **8003477888** 11. Ext.:  12. FAX:

**G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING IRA:**

- ☒ 1. RP or PRP ☐ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter
- ☒ e. Other RP or PRP Specify: **OTHER PRPS**
- ☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)
- ☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))
- ☐ 4. Any Other Person Undertaking IRA Specify Relationship:

**H. REQUIRED ATTACHMENT AND SUBMITTALS:**

- ☐ 1. Check here if any Remediation Waste, generated as a result of this IRA, will be stored, treated, managed, recycled or reused at the site following submission of the IRA Completion Statement. If this box is checked, you must submit one of the following plans, along with the appropriate transmittal form.
- ☐ a. A Release Abatement Measure (RAM) Plan (BWSC106) ☐ b. Phase IV Remedy Implementation Plan (BWSC108)
- ☐ 2. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.
- ☒ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health were notified of the implementation of an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.
- ☐ 4. Check here to certify that the Chief Municipal Officer and the Local Board of Health were notified of the submittal of a Completion Statement for an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.
- ☐ 5. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to the DEP Regional Office.
- ☒ 6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.



Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL  
FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

3

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23246

I. CERTIFICATION OF PERSON UNDERTAKING IRA:

1. I, **JOHN R. BADEY**, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: **John R. Badey**

Signature

3. Title:

4. For: **UNIFIRST CORP**

(Name of person or entity recorded in Section F)

5. Date: **11/07/2008**

(mm/dd/yyyy)

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section F.

7. Street: \_\_\_\_\_

8. City/Town: \_\_\_\_\_ 9. State: \_\_\_\_\_ 10. ZIP Code: \_\_\_\_\_

11. Telephone: \_\_\_\_\_ 12. Ext.: \_\_\_\_\_ 13. FAX: \_\_\_\_\_

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO \$10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)

Received by DEP on

11/10/2008 3:04:19 PM





Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Release Tracking Number

3

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23246

Remedial System or Monitoring Program: 1 of: 4

A. DESCRIPTION OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM:

1. Type of Active Remedial System or Active Remedial Monitoring Program: (check all that apply)

- ☒ a. Active Remedial System: (check all that apply)
- |   |   |  |
|---|---|--|
| <input type="checkbox"/> i. NAPL Recovery         | <input type="checkbox"/> ii. Soil Vapor Extraction/Bioventing | <input type="checkbox"/> iii. Vapor-phase Carbon Adsorption  |
| <input type="checkbox"/> iv. Groundwater Recovery | <input type="checkbox"/> v. Dual/Multi-phase Extraction       | <input type="checkbox"/> vi. Aqueous-phase Carbon Adsorption |
| <input type="checkbox"/> vii. Air Stripping       | <input type="checkbox"/> viii. Sparging/Biosparging           | <input type="checkbox"/> ix. Cat/Thermal Oxidation           |

☒ x. Other Describe: **SUB-SLAB DEPRESSURIZATION SYSTEM**

- ☐ b. Application of Remedial Additives: (check all that apply)
- |   |   |  |
|---|---|--|
| <input type="checkbox"/> i. To the Subsurface | <input type="checkbox"/> ii. To Groundwater (Injection) | <input type="checkbox"/> iii. To the Surface |
|---|---|--|

☐ c. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section F5)

- ☐ i. Reactive Wall ☐ ii. Natural Attenuation ☐ iii. Other Describe: \_\_\_\_\_

2. Mode of Operation: (check one)

- ☒ a. Continuous ☐ b. Intermittent ☐ c. Pulsed ☐ d. One-time Event Only ☐ e. Other: \_\_\_\_\_

3. System Effluent/Discharge: (check all that apply)

- ☐ a. Sanitary Sewer/POTW
- ☐ b. Groundwater Re-infiltration/Re-injection: (check one) ☐ i. Downgradient ☐ ii. Upgradient
- ☒ c. Vapor-phase Discharge to Ambient Air: (check one) ☐ i. Off-gas Controls ☒ ii. No Off-gas Controls
- ☐ d. Drinking Water Supply
- ☐ e. Surface Water (including Storm Drains)

☐ f. Other Describe: \_\_\_\_\_

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: **4/1/2008** To: **9/30/2008**  
(mm/dd/yyyy) (mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)

- ☐ a. System Startup: (if applicable)
- ☐ i. Days 1, 3, 6, and then weekly thereafter, for the first month.
- ☐ ii. Other Describe: \_\_\_\_\_

☒ b. Post-system Startup (after first month) or Monitoring Program:

- ☐ i. Monthly
- ☐ ii. Quarterly
- ☒ iii. Other Describe: **TOTAL VOCs, ~ WEEKLY; INDOOR AIR, ~ MONTHLY**

☐ 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

- ☐ 1. NPDES: (check one) ☐ a. Remediation General Permit ☐ b. Individual Permit ☐ c. Emergency Exclusion
- Effective Date of Permit: \_\_\_\_\_ (mm/dd/yyyy)

☒ 2. MCP Performance Standard MCP Citations(s): **WSC-94-150**

☐ 3. DEP Approval Letter Date of Letter: \_\_\_\_\_ (mm/dd/yyyy)

☐ 4. Other Describe: \_\_\_\_\_



Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 1 of: 4

D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

- ☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.

a. Name:  b. Grade:

c. License No.:  d. License Exp. Date:   
(mm/dd/yyyy)

- ☐ 2. Not Required

- ☒ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD:

(check all that apply)

- ☒ 1. The Active Remedial System was functional one or more days during the Reporting Period.

a. Days System was Fully Functional: 183 b. GW Recovered (gals):

c. NAPL Recovered (gals):  d. GW Discharged (gals):

e. Avg. Soil Gas Recovery Rate (scfm): 130 f. Avg. Sparging Rate (scfm):

- ☐ 2. Remedial Additives: (check all that apply)

- ☐ a. No Remedial Additives applied during the Reporting Period.

- ☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

- ☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

- ☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

- ☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

- ☐ iv. Other:

Name of Additive	Date	Quantity	Units

- ☐ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

- ☐ i. Permanganates:

Name of Additive	Date	Quantity	Units

- ☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

- ☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

- ☐ iv. Other:

Name of Additive	Date	Quantity	Units





Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 1 of: 4

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.)  
(check all that apply)

☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

☐ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: \_\_\_\_\_ b. Total Number of Days of Unscheduled Shutdowns: \_\_\_\_\_

c. Reason(s) for Unscheduled Shutdowns: \_\_\_\_\_

☐ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: \_\_\_\_\_ b. Total Number of Days of Scheduled Shutdowns: \_\_\_\_\_

c. Reason(s) for Scheduled Shutdowns: \_\_\_\_\_

☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: \_\_\_\_\_  
(mm/dd/yyyy)

☐ b. No Further Effluent Discharges.

☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

☐ d. No Further Submittals Planned.

☐ e. Other: Describe: \_\_\_\_\_

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

☒ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

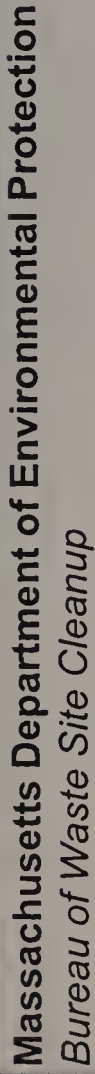
☒ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

☒ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

☒ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.





## Release Tracking Number

# IRA REMEDIAL MONITORING REPORT EFFLUENT/DISCHARGE CONCENTRATIONS

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Remedial System or Monitoring Program:

4

4

For each Point of Measurement, indicate the highest concentration detected during the reporting period, of each oil, hazardous material and/or remedial additive.

[illegible]

☐ Check here if an additional BWS-C105B, Effluent/Discharge Concentrations Form, is needed.









Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Release Tracking Number

3 - 23246

Remedial System or Monitoring Program: 2 of: 4

A. DESCRIPTION OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM:

1. Type of Active Remedial System or Active Remedial Monitoring Program: (check all that apply)

- ☒ a. Active Remedial System: (check all that apply)
- |   |   |  |
|---|---|--|
| <input type="checkbox"/> i. NAPL Recovery         | <input type="checkbox"/> ii. Soil Vapor Extraction/Bioventing | <input type="checkbox"/> iii. Vapor-phase Carbon Adsorption  |
| <input type="checkbox"/> iv. Groundwater Recovery | <input type="checkbox"/> v. Dual/Multi-phase Extraction       | <input type="checkbox"/> vi. Aqueous-phase Carbon Adsorption |
| <input type="checkbox"/> vii. Air Stripping       | <input type="checkbox"/> viii. Sparging/Biosparging           | <input type="checkbox"/> ix. Cat/Thermal Oxidation           |

☒ x. Other Describe: SUB-SLAB DEPRESSURIZATION SYSTEM

- ☐ b. Application of Remedial Additives: (check all that apply)
- |   |   |  |
|---|---|--|
| <input type="checkbox"/> i. To the Subsurface | <input type="checkbox"/> ii. To Groundwater (Injection) | <input type="checkbox"/> iii. To the Surface |
|---|---|--|

☐ c. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section F5)

☐ i. Reactive Wall ☐ ii. Natural Attenuation ☐ iii. Other Describe: \_\_\_\_\_

2. Mode of Operation: (check one)

- ☒ a. Continuous ☐ b. Intermittent ☐ c. Pulsed ☐ d. One-time Event Only ☐ e. Other: \_\_\_\_\_

3. System Effluent/Discharge: (check all that apply)

- ☐ a. Sanitary Sewer/POTW
- ☐ b. Groundwater Re-infiltration/Re-injection: (check one) ☐ i. Downgradient ☐ ii. Upgradient
- ☒ c. Vapor-phase Discharge to Ambient Air: (check one) ☐ i. Off-gas Controls ☒ ii. No Off-gas Controls
- ☐ d. Drinking Water Supply
- ☐ e. Surface Water (including Storm Drains)

☐ f. Other Describe: \_\_\_\_\_

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: 4/1/2008 To: 9/30/2008  
(mm/dd/yyyy) (mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)

- ☐ a. System Startup: (if applicable)
- ☐ i. Days 1, 3, 6, and then weekly thereafter, for the first month.
- ☐ ii. Other Describe: \_\_\_\_\_

☒ b. Post-system Startup (after first month) or Monitoring Program:

- ☐ i. Monthly
- ☐ ii. Quarterly

☒ iii. Other Describe: YEARLY

☐ 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

- ☐ 1. NPDES: (check one) ☐ a. Remediation General Permit ☐ b. Individual Permit ☐ c. Emergency Exclusion Effective Date of Permit: \_\_\_\_\_  
(mm/dd/yyyy)

☒ 2. MCP Performance Standard MCP Citations(s): WSC-94-150

☐ 3. DEP Approval Letter Date of Letter: \_\_\_\_\_  
(mm/dd/yyyy)

☐ 4. Other Describe: \_\_\_\_\_



Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Release Tracking Number

3 - 23246

Remedial System or Monitoring Program: 2 of: 4

D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

- ☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.  
a. Name:  b. Grade:   
c. License No.:  d. License Exp. Date:   
(mm/dd/yyyy)
- ☐ 2. Not Required
- ☒ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD:

(check all that apply)

- ☒ 1. The Active Remedial System was functional one or more days during the Reporting Period.  
a. Days System was Fully Functional: 183 b. GW Recovered (gals):   
c. NAPL Recovered (gals):  d. GW Discharged (gals):   
e. Avg. Soil Gas Recovery Rate (scfm): 95 f. Avg. Sparging Rate (scfm):

☐ 2. Remedial Additives: (check all that apply)

- ☐ a. No Remedial Additives applied during the Reporting Period.
- ☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

☐ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Permanganates:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units





Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 2 of: 4

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.)  
(check all that apply)

- ☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

- ☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

- ☐ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: \_\_\_\_\_ b. Total Number of Days of Unscheduled Shutdowns: \_\_\_\_\_

c. Reason(s) for Unscheduled Shutdowns: \_\_\_\_\_

- ☐ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: \_\_\_\_\_ b. Total Number of Days of Scheduled Shutdowns: \_\_\_\_\_

c. Reason(s) for Scheduled Shutdowns: \_\_\_\_\_

- ☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: \_\_\_\_\_  
(mm/dd/yyyy)

- ☐ b. No Further Effluent Discharges.

- ☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

- ☐ d. No Further Submittals Planned.

- ☐ e. Other: Describe: \_\_\_\_\_

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

- ☒ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

- ☒ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

- ☒ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

- ☒ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.





Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Release Tracking Number

3 - 23246

Remedial System or Monitoring Program: 3 of: 4

A. DESCRIPTION OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM:

1. Type of Active Remedial System or Active Remedial Monitoring Program: (check all that apply)

- ☒ a. Active Remedial System: (check all that apply)
- |   |   |  |
|---|---|--|
| <input type="checkbox"/> i. NAPL Recovery         | <input type="checkbox"/> ii. Soil Vapor Extraction/Bioventing | <input checked="" type="checkbox"/> iii. Vapor-phase Carbon Adsorption |
| <input type="checkbox"/> iv. Groundwater Recovery | <input type="checkbox"/> v. Dual/Multi-phase Extraction       | <input type="checkbox"/> vi. Aqueous-phase Carbon Adsorption           |
| <input type="checkbox"/> vii. Air Stripping       | <input type="checkbox"/> viii. Sparging/Biosparging           | <input type="checkbox"/> ix. Cat/Thermal Oxidation                     |

☒ x. Other Describe: SUB-SLAB DEPRESSURIZATION SYSTEM

☐ b. Application of Remedial Additives: (check all that apply)

- ☐ i. To the Subsurface ☐ ii. To Groundwater (Injection) ☐ iii. To the Surface

☐ c. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section F5)

- ☐ i. Reactive Wall ☐ ii. Natural Attenuation ☐ iii. Other Describe: \_\_\_\_\_

2. Mode of Operation: (check one)

- ☒ a. Continuous ☐ b. Intermittent ☐ c. Pulsed ☐ d. One-time Event Only ☐ e. Other: \_\_\_\_\_

3. System Effluent/Discharge: (check all that apply)

- ☐ a. Sanitary Sewer/POTW
- ☐ b. Groundwater Re-infiltration/Re-injection: (check one) ☐ i. Downgradient ☐ ii. Upgradient
- ☒ c. Vapor-phase Discharge to Ambient Air: (check one) ☒ i. Off-gas Controls ☐ ii. No Off-gas Controls
- ☐ d. Drinking Water Supply
- ☐ e. Surface Water (including Storm Drains)

☐ f. Other Describe: \_\_\_\_\_

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: 4/1/2008 To: 9/30/2008  
(mm/dd/yyyy) (mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)

- ☐ a. System Startup: (if applicable)
- ☐ i. Days 1, 3, 6, and then weekly thereafter, for the first month.
- ☐ ii. Other Describe: \_\_\_\_\_

☒ b. Post-system Startup (after first month) or Monitoring Program:

- ☐ i. Monthly
- ☐ ii. Quarterly
- ☒ iii. Other Describe: TOTAL VOCs, ~ MONTHLY; INDOOR AIR, ~ YEARLY

☐ 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

- ☐ 1. NPDES: (check one) ☐ a. Remediation General Permit ☐ b. Individual Permit ☐ c. Emergency Exclusion  
Effective Date of Permit: \_\_\_\_\_  
(mm/dd/yyyy)

☒ 2. MCP Performance Standard MCP Citations(s): WSC-94-150

☐ 3. DEP Approval Letter Date of Letter: \_\_\_\_\_  
(mm/dd/yyyy)

☐ 4. Other Describe: \_\_\_\_\_





Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 3 of 4

D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

- ☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.

a. Name:

b. Grade:

c. License No.:

d. License Exp. Date:

(mm/dd/yyyy)

- ☐ 2. Not Required

- ☒ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD:

(check all that apply)

- ☒ 1. The Active Remedial System was functional one or more days during the Reporting Period.

a. Days System was Fully Functional:

183

b. GW Recovered (gals):

c. NAPL Recovered (gals):

d. GW Discharged (gals):

e. Avg. Soil Gas Recovery Rate (scfm):

390

f. Avg. Sparging Rate (scfm):

- ☐ 2. Remedial Additives: (check all that apply)

☐ a. No Remedial Additives applied during the Reporting Period.

☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

☐ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Permanganates:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units



Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 3 of: 4

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.)  
(check all that apply)

- ☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

- ☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

- ☐ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: \_\_\_\_\_ b. Total Number of Days of Unscheduled Shutdowns: \_\_\_\_\_

c. Reason(s) for Unscheduled Shutdowns: \_\_\_\_\_

- ☒ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: 1 b. Total Number of Days of Scheduled Shutdowns: 0

c. Reason(s) for Scheduled Shutdowns: CARBON CHANGE OUT ~ 1 HOUR

- ☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: \_\_\_\_\_  
(mm/dd/yyyy)

- ☐ b. No Further Effluent Discharges.

- ☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

- ☐ d. No Further Submittals Planned.

- ☐ e. Other: Describe: \_\_\_\_\_

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

- ☒ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

- ☒ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

- ☒ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

- ☒ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.







Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105B

Release Tracking Number

3 - 23246

IRA REMEDIAL MONITORING REPORT  
EFFLUENT/DISCHARGE CONCENTRATIONS

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Remedial System or Monitoring Program: 3 of: 4

For each Point of Measurement, indicate the highest concentration detected during the reporting period, of each oil, hazardous material and/or remedial additive.

Point of Measurement	Date (mm/dd/yyyy)	Contaminant, Measurement and/or Indicator Parameter	Influent Concentration (where applicable)	Midpoint Concentration (where applicable)	(check one) <input checked="" type="checkbox"/> Discharge <input type="checkbox"/> Groundwater Concentration	Check here, if ND/BDL	Permissible Concentration	Units	Within Permissible Limits? (Y/N)
SSDS	4/19/2008	TOTAL VOCS	22.8			<input checked="" type="checkbox"/>	1.1	PPM	Yes
SSDS	5/1/2008	TOTAL VOCS	62.9		1.5	<input type="checkbox"/>	3.1	PPM	Yes
SSDS	5/19/2008	TOTAL VOCS	45.8			<input checked="" type="checkbox"/>	2.3	PPM	Yes
SSDS	6/25/2008	TOTAL VOCS	23.3		1.6	<input type="checkbox"/>	1.2	PPM	N
SSDS	6/27/2008	TOTAL VOCS	53.7		3	<input type="checkbox"/>	2.7	PPM	N
SSDS	6/27/2008	TOTAL VOCS	33.1			<input checked="" type="checkbox"/>	1.7	PPM	Yes
SSDS	7/11/2008	TOTAL VOCS	109.4		1.1	<input type="checkbox"/>	5.5	PPM	Yes
SSDS	7/16/2008	TOTAL VOCS	65.2			<input checked="" type="checkbox"/>	3.3	PPM	Yes
SSDS	7/17/2008	TOTAL VOCS	89.3			<input checked="" type="checkbox"/>	4.5	PPM	Yes
SSDS	7/25/2008	TOTAL VOCS	94.8		1.1	<input type="checkbox"/>	4.7	PPM	Yes
SSDS	8/1/2008	TOTAL VOCS	33.5			<input checked="" type="checkbox"/>	1.7	PPM	Yes
SSDS	8/8/2008	TOTAL VOCS	36.6			<input checked="" type="checkbox"/>	1.8	PPM	Yes
SSDS	8/19/2008	TOTAL VOCS	45.1			<input checked="" type="checkbox"/>	2.3	PPM	Yes
SSDS	9/3/2008	TOTAL VOCS	52.3		1.1	<input type="checkbox"/>	2.6	PPM	Yes
SSDS	9/9/2008	TOTAL VOCS	33.6			<input checked="" type="checkbox"/>	1.7	PPM	Yes
						<input type="checkbox"/>			
						<input type="checkbox"/>			
						<input type="checkbox"/>		MG/KG	
						<input type="checkbox"/>			
						<input type="checkbox"/>			

☐ Check here if an additional BWSC105B, Effluent/Discharge Concentrations Form, is needed.







Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 4 of: 4

A. DESCRIPTION OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM:

1. Type of Active Remedial System or Active Remedial Monitoring Program: (check all that apply)

- ☒ a. Active Remedial System: (check all that apply)
- |   |  |  |
|---|--|--|
| <input type="checkbox"/> i. NAPL Recovery         | <input checked="" type="checkbox"/> ii. Soil Vapor Extraction/Bioventing | <input checked="" type="checkbox"/> iii. Vapor-phase Carbon Adsorption |
| <input type="checkbox"/> iv. Groundwater Recovery | <input type="checkbox"/> v. Dual/Multi-phase Extraction                  | <input type="checkbox"/> vi. Aqueous-phase Carbon Adsorption           |
| <input type="checkbox"/> vii. Air Stripping       | <input type="checkbox"/> viii. Sparging/Biosparging                      | <input type="checkbox"/> ix. Cat/Thermal Oxidation                     |

☐ x. Other Describe: \_\_\_\_\_

☐ b. Application of Remedial Additives: (check all that apply)

- ☐ i. To the Subsurface ☐ ii. To Groundwater (Injection) ☐ iii. To the Surface

☐ c. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section F5)

- ☐ i. Reactive Wall ☐ ii. Natural Attenuation ☐ iii. Other Describe: \_\_\_\_\_

2. Mode of Operation: (check one)

- ☒ a. Continuous ☐ b. Intermittent ☐ c. Pulsed ☐ d. One-time Event Only ☐ e. Other: \_\_\_\_\_

3. System Effluent/Discharge: (check all that apply)

- ☐ a. Sanitary Sewer/POTW
- ☐ b. Groundwater Re-infiltration/Re-injection: (check one) ☐ i. Downgradient ☐ ii. Upgradient
- ☒ c. Vapor-phase Discharge to Ambient Air: (check one) ☒ i. Off-gas Controls ☐ ii. No Off-gas Controls
- ☐ d. Drinking Water Supply
- ☐ e. Surface Water (including Storm Drains)

☐ f. Other Describe: \_\_\_\_\_

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: 4/1/2008 To: 9/30/2008  
(mm/dd/yyyy) (mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)

- ☐ a. System Startup: (if applicable)
- ☐ i. Days 1, 3, 6, and then weekly thereafter, for the first month.
- ☐ ii. Other Describe: \_\_\_\_\_

☒ b. Post-system Startup (after first month) or Monitoring Program:

- ☐ i. Monthly
- ☐ ii. Quarterly

☒ iii. Other Describe: TOTAL VOCs, ~ MONTHLY; INDOOR AIR, ~ YEARLY

☐ 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

- ☐ 1. NPDES: (check one) ☐ a. Remediation General Permit ☐ b. Individual Permit
- ☐ c. Emergency Exclusion Effective Date of Permit: \_\_\_\_\_
- (mm/dd/yyyy)

☒ 2. MCP Performance Standard MCP Citations(s): WSC-94-150

☐ 3. DEP Approval Letter Date of Letter: \_\_\_\_\_

(mm/dd/yyyy)

☐ 4. Other Describe: \_\_\_\_\_



Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

BWSC105A

IRA REMEDIAL MONITORING REPORT

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Release Tracking Number

3

-

23246

Remedial System or Monitoring Program: 4 of: 4

D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

- ☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.  
a. Name:  b. Grade:   
c. License No.:  d. License Exp. Date:   
(mm/dd/yyyy)
- ☐ 2. Not Required
- ☒ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD:

(check all that apply)

- ☒ 1. The Active Remedial System was functional one or more days during the Reporting Period.  
a. Days System was Fully Functional: 183 b. GW Recovered (gals):   
c. NAPL Recovered (gals):  d. GW Discharged (gals):   
e. Avg. Soil Gas Recovery Rate (scfm): 390 f. Avg. Sparging Rate (scfm):

- ☐ 2. Remedial Additives: (check all that apply)
- ☐ a. No Remedial Additives applied during the Reporting Period.
- ☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

- ☐ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Permanganates:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units





**Massachusetts Department of Environmental Protection**  
*Bureau of Waste Site Cleanup*

**BWSC105A**

**IRA REMEDIAL MONITORING REPORT**

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Release Tracking Number

**3**

-

**23246**

Remedial System or Monitoring Program: **4** of: **4**

**E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.)**  
(check all that apply)

- ☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

- ☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

**F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)**

- ☐ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: \_\_\_\_\_ b. Total Number of Days of Unscheduled Shutdowns: \_\_\_\_\_

c. Reason(s) for Unscheduled Shutdowns: \_\_\_\_\_

- ☒ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: **1** b. Total Number of Days of Scheduled Shutdowns: **0**

c. Reason(s) for Scheduled Shutdowns: **CARBON CHANGE OUT ~ 1 HOUR**

- ☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: \_\_\_\_\_  
(mm/dd/yyyy)

- ☐ b. No Further Effluent Discharges.

- ☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

- ☐ d. No Further Submittals Planned.

- ☐ e. Other: Describe: \_\_\_\_\_

**G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)**

- ☒ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

- ☒ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

- ☒ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

- ☒ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.





Massachusetts Department of Environmental Protection  
Bureau of Waste Site Cleanup

IRA REMEDIAL MONITORING REPORT  
EFFLUENT/DISCHARGE CONCENTRATIONS

Pursuant to 310 CMR 40.0400 ( SUBPART D )

Remedial System or Monitoring Program: 4 of: 4

BWSC105B

Release Tracking Number

3 - 23246

For each Point of Measurement, indicate the highest concentration detected during the reporting period, of each oil, hazardous material and/or remedial additive.

Point of Measurement	Date (mm/dd/yyyy)	Contaminant, Measurement and/or Indicator Parameter	Influent Concentration (where applicable)	Midpoint Concentration (where applicable)	(check one) <input checked="" type="checkbox"/> Discharge <input type="checkbox"/> Groundwater Concentration	Check here, if ND/BDL	Permissible Concentration	Units	Within Permissible Limits? (Y/N)
SVE	4/19/2008	TOTAL VOCS	22.8		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1.1	PPM	Yes
SVE	5/1/2008	TOTAL VOCS	62.9		1.5	<input type="checkbox"/>	3.1	PPM	Yes
SVE	5/19/2008	TOTAL VOCS	45.8			<input checked="" type="checkbox"/>	2.3	PPM	Yes
SVE	6/25/2008	TOTAL VOCS	23.3		1.6	<input type="checkbox"/>	1.2	PPM	N
SVE	6/27/2008	TOTAL VOCS	53.7		3	<input type="checkbox"/>	2.7	PPM	N
SVE	6/27/2008	TOTAL VOCS	33.1			<input checked="" type="checkbox"/>	1.7	PPM	Yes
SVE	7/11/2008	TOTAL VOCS	109.4		1.1	<input type="checkbox"/>	5.5	PPM	Yes
SVE	7/16/2008	TOTAL VOCS	65.2			<input checked="" type="checkbox"/>	3.3	PPM	Yes
SVE	7/17/2008	TOTAL VOCS	89.3			<input checked="" type="checkbox"/>	4.5	PPM	Yes
SVE	7/25/2008	TOTAL VOCS	94.8		1.1	<input type="checkbox"/>	4.7	PPM	Yes
SVE	8/1/2008	TOTAL VOCS	33.5			<input checked="" type="checkbox"/>	1.7	PPM	Yes
SVE	8/8/2008	TOTAL VOCS	36.6			<input checked="" type="checkbox"/>	1.8	PPM	Yes
SVE	8/19/2008	TOTAL VOCS	45.1			<input checked="" type="checkbox"/>	2.3	PPM	Yes
SVE	9/3/2008	TOTAL VOCS	52.3		1.1	<input type="checkbox"/>	2.6	PPM	Yes
SVE	9/9/2008	TOTAL VOCS	33.6			<input checked="" type="checkbox"/>	1.7	PPM	Yes
						<input type="checkbox"/>			
						<input type="checkbox"/>			
						<input type="checkbox"/>		MG/KG	
						<input type="checkbox"/>			
						<input type="checkbox"/>			

☐ Check here if an additional BWSC105B, Effluent/Discharge Concentrations Form, is needed.







**Submittal Summary & Receipt**

Your submission is complete. Thank you for using DEP's online reporting system. You can select "My Homepage" to review your status.

DEP Transaction ID: 204626  
Date and Time Submitted: 11/10/2008 3:04:19 PM  
User Email : CHathaway@geiconsultants.com  
Other Email :

**Form Name:** BWSC 105 IRA Transmittal Form

RTN: 3-23246  
Location: 50 TUFTS ST & PROP ACROSS THE ST  
Address: 50 TUFTS ST, SOMERVILLE, 021454129

Person Making Submittal  
UNIFIRST CORP  
JOHN R BADEY  
68 JONSPIN RD  
WILMINGTON, MA 018870000

LSP  
LSP #: 9719  
LSP Name: ILEEN S GLADSTONE

Person Making Certification  
UNIFIRST CORP  
JOHN R. BADEY  
BWSC Remedial Monitoring Report ( )  
BWSC Remedial Monitoring Report ( )  
BWSC Remedial Monitoring Report ( )  
BWSC Remedial Monitoring Report ( )  
BWSC Remedial Monitoring Report B( )  
BWSC Remedial Monitoring Report B( )  
BWSC Remedial Monitoring Report B( )

**Ancillary Document Uploaded/Mailed**  
BWSC-105 Q.B06 - IRA Status Report - By Mail  
RMR-A G5 Additional Supporting Information - By Mail  
RMR-A G5 Additional Supporting Information - By Mail  
RMR-A G5 Additional Supporting Information - By Mail  
RMR-A G5 Additional Supporting Information - By Mail

[print receipt](#) [cancel](#)

**From:** <eDEPConfirmation@massmail.state.ma.us>  
**To:** <igladstone@geiconsultants.com>  
**Date:** 11/10/2008 3:07 PM  
**Subject:** eDEP Submittal Confirmation for DEP Transaction ID: 204626

**CC:** <chathaway@geiconsultants.com>

Thank you for using eDEP Online Filing from the Massachusetts Department of Environmental Protection. Your transaction is complete and has been submitted to MassDEP.

This email is your receipt for the eDEP Online Filing transaction described below. Please review it and keep a copy for your records.

Please do NOT reply to this message, this email address will not receive messages. For assistance with eDEP Online Filing, please email the DEP Help Desk at DEP.HELP@state.ma.us or call 617-556-1100.

MassDEP is interested in how we can serve you better. To help us make improvements to eDEP, please take a minute to complete our eDEP Online Filing Survey at <http://www.mass.gov/dep/service/compliance/edepsurv.htm>.

To contact MassDEP Programs, please see <http://mass.gov/dep/about/contacts.htm>.

\*\*\*\*\*

DEP Transaction ID: 204626

Date and Time Submitted: 11/10/2008 3:04:19 PM

\*\*\*\*\*

Form Name: BWSC 105 IRA Transmittal Form

RTN: 3-23246

Location: 50 TUFTS ST & PROP ACROSS THE ST

Address: 50 TUFTS ST

SOMERVILLE

021454129

Person Making Submittal

UNIFIRST CORP

JOHN R

BADEY

68 JONSPIN RD

WILMINGTON

MA

018870000

LSP

LSP #: 9719

LSP Name: ILEEN S

GLADSTONE

Person Making Certification

UNIFIRST CORP

JOHN R. BADEY

BWSC Remedial Monitoring Report ( )

BWSC Remedial Monitoring Report ( )

BWSC Remedial Monitoring Report ( )

BWSC Remedial Monitoring Report ( )

BWSC Remedial Monitoring Report B( )

BWSC Remedial Monitoring Report B( )

BWSC Remedial Monitoring Report B( )

Ancillary Document Uploaded/Mailed :

BWSC-105 Q.B06 - IRA Status Report - By Mail

RMR-A G5 Additional Supporting Information - By Mail

RMR-A G5 Additional Supporting Information - By Mail

RMR-A G5 Additional Supporting Information - By Mail

RMR-A G5 Additional Supporting Information - By Mail

\*\*\*\*\*

EMAIL ID OF THE USER: igladstone@geiconsultants.com

\*\*\*\*\*

EMAIL ID OF THE OTHER USERS: chathaway@geiconsultants.com

\*\*\*\*\*







Geotechnical  
Environmental  
Water Resources  
Ecological








## Appendix B

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### Public Involvement Information





# Neighborhood Meeting 50 Tufts Street

Ileen Gladstone, P.E., LSP, LEED AP  
April 28, 2008



# Agenda

- 50 Tufts Street
- Site Characterization
- Residences and Commercial Buildings
- Capuano Early Childhood Center
- Next Steps

# 50 Tufts Street Soil

- Soil vapor extraction (SVE) system
  - Operating since August 2007
  - Extracting contaminants from soil
  - Removed 4,000 pounds of Volatile Organic Compounds (VOCs)
- SVE is working to remove VOCs from soil above the water table



# 50 Tufts Street Building

- Sub-Slab Depressurization System (SSDS)
  - Operating since April 2007
  - Collecting VOCs in soil gas beneath building slab
- Indoor air sampling confirmed effectiveness of SSDS
- Building occupied



# Site Characterization

- GEI's Site investigation began in November 2005.
- Installed:
  - 54 Soil borings
  - 44 Shallow groundwater monitoring
  - 5 Bedrock groundwater monitoring
  - 18 Subsurface soil vapor sampling points

# Site Characterization

- Collected and analyzed 97 soil samples
- Conducted 7 rounds of groundwater sampling
- Collected and analyzed 138 groundwater samples
- Collected and analyzed 77 subsurface soil vapor samples
- Conducted 26 measurements of groundwater surface to map groundwater flow.



# Monitoring Locations





# Cross-Section



# Conclusions

- Site is thoroughly characterized
- Nature, concentrations, and distribution of contaminants in subsurface have been determined
- Groundwater contamination has been mapped and is in a “steady state”



# MCP Site Boundary





# Building Evaluation

- Evaluated residences and buildings within defined study area
- Outcome of evaluation:
  - Exposure Pathway Elimination Measure (EPEM) recommended
  - Additional indoor air testing to be conducted, or
  - No action required

# Statistics for the Study Area

▪ Residences and Buildings within Study Area:	70
▪ No Contact Information:	4
▪ Contacted:	66
▪ Sampling conducted:	60
▪ Refused Sampling:	6
▪ Mitigation Recommended:	29
▪ Mitigation Pending:	17
▪ Mitigation Installed:	7
▪ Access Refused:	5



# Steps in EPEM Process

- Select EPEM based on property conditions
- Obtain Access Agreements
- Install EPEM
- Record Activity and Use Limitations (AUL)
  - UniFirst inspects and monitors system
  - Property owner agrees to provide access and not damage the EPEM
  - Establishes that your property meets regulatory requirements



# Capuano Early Childhood Center

- Multiple additional rounds of testing and monitoring have been completed
- System continues to operate successfully

# Next Steps

- Continue EPEM installation
- Continue monitoring
- File Phase II Report with DEP on schedule

# **50 Tufts Street Neighborhood Meeting**

## **Agenda**

- 50 Tufts Street
- Summary of Phase II Testing
- Nearby Residences and Buildings
- Next Steps

**April 28, 2008 – Holiday Inn**

For any additional information please contact Ileen Gladstone at  
781-721-4012 or [igladstone@geiconsultants.com](mailto:igladstone@geiconsultants.com)



# Neighborhood Meeting - April 28, 2008

[illegible]

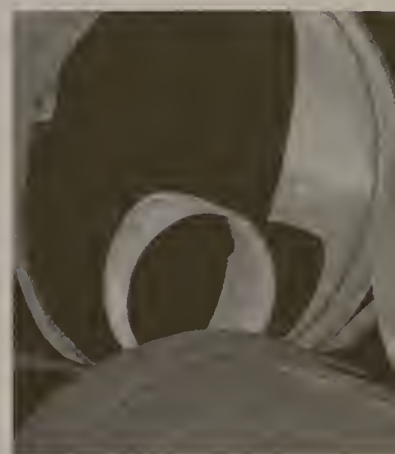
## Sign-In Sheet

# Neighborhood Meeting - April 28, 2008

[illegible]



Geotechnical  
Environmental  
Water Resources  
Ecological







## Appendix C

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### Capuano Center – Weekly Mechanical Inspection Logs





Weekly SSDS Mechanical Inspection Log for Capuano Center

GENERAL INFORMATION			
GEI Field Representatives:	S. Chervincky	Start-time of monitoring work:	9:30
Date:	06/13/08	End-time of monitoring work:	10:30
Weather:	Sunny, 80°	System Status:	ON

INSTRUMENTATION INFORMATION			
Instrument	PID (ppb)	Manometer (in H <sub>2</sub> O)	Hot Wire Thermo-Anemometer (ft/min)
Manufacturer	Pro-Rae Systems	Dwyer	Extech Instruments
Model	ppb-RAE	Mark III-475-0000 Series	407123
GEI Identification No.	PINE	NA	NA
Calibrant	10 ppm Isobutylene	NA	NA
Successful Calibration	Yes	Zeroed before each reading	Zeroed before each reading

FIELD MEASUREMENTS				
Shed Secure?	Yes	Discharge Pressure Port		
Condensate Accumulated?	No	Velocity (ft/min)	1,392	
		Pipe Diameter (ft)	0.33	
Condensate Drained?	NA	Average Flow Rate (cfm)	119	
Shed Pressure/VOC Measurements				
Port ID	Typical Pressure Range	Pressure (in. H <sub>2</sub> O)	Typical Range of VOCs	VOC (ppb)
Manifold 12	-0.300 to -0.500	-0.291	0 to 2000	0
Manifold 13	-0.300 to -0.500	-0.304	0 to 5000	0
Manifold 14	-0.300 to -0.500	-0.284	0 to 2000	0
Combined Influent	-0.600 to -0.700	-0.589	0 to 2000	11
Effluent	0.480 to 0.600	0.579	0 to 2000	7

Comments

- Notes:
- 1. Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146.
  - 2. PID = photoionization detector.
  - 3. ppb = parts per billion.
  - 4. ppm = parts per million.
  - 5. in. H<sub>2</sub>O = inches of water column.
  - 6. ft = feet.
  - 7. ft/min = feet per minute.
  - 8. cfm = cubic feet per minute.
  - 9. NA = Not Applicable.

## Weekly SSDS Mechanical Inspection Log for Capuano Center

### GENERAL INFORMATION

GEI Field Representatives:	S. Slater	Start-time of monitoring work:	14:00
	S. Chervincky	End-time of monitoring work:	14:45
Date:	05/29/08	System Status:	ON
Weather:	Sunny, 70°		

### INSTRUMENTATION INFORMATION

Instrument	PID (ppb)	Manometer (in H <sub>2</sub> O)	Hot Wire Thermo-Anemometer (ft/min)
Manufacturer	Pro-Rae Systems	Dwyer	Extech Instruments
Model	ppb-RAE	Mark III-475-0000 Series	407123
GEI Identification No.	PINE	NA	NA
Calibrant	10 ppm Isobutylene	NA	NA
Successful Calibration	Yes	Zeroed before each reading	Zeroed before each reading

### FIELD MEASUREMENTS

Shed Secure?	Yes	Discharge Pressure Port	
Condensate Accumulated?	No	Velocity (ft/min)	1,441
		Pipe Diameter (ft)	0.33
Condensate Drained?	NA	Average Flow Rate (cfm)	123

### Shed Pressure/VOC Measurements

Port ID	Typical Pressure Range	Pressure (in. H <sub>2</sub> O)	Typical Range of VOCs	VOC (ppb)
Manifold 12	-0.300 to -0.500	-0.288	0 to 2000	0
Manifold 13	-0.300 to -0.500	-0.322	0 to 5000	0
Manifold 14	-0.300 to -0.500	-0.296	0 to 2000	89
Combined Influent	-0.600 to -0.700	-0.583	0 to 2000	0
Effluent	0.480 to 0.600	-0.559	0 to 2000	185

### Comments

PID calibrated at approximately 7000 ppb. Lamp error was noted.

### Notes:

- Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146.
- PID = photoionization detector.
- ppb = parts per billion.
- ppm = parts per million.
- in. H<sub>2</sub>O = inches of water column.
- ft = feet.
- ft/min = feet per minute.
- cfm = cubic feet per minute.
- NA = Not Applicable.

## Weekly SSDS Mechanical Inspection Log for Capuano Center

GENERAL INFORMATION			
GEI Field Representatives:	C. Malagrida	Start-time of monitoring work:	10:20
Date:	05/09/08	End-time of monitoring work:	10:55
Weather:	Cloudy, 50°	System Status:	ON

INSTRUMENTATION INFORMATION			
<b>Instrument</b>	PID (ppb)	Manometer (in. H <sub>2</sub> O)	Hot Wire Thermo-Anemometer (ft/min)
<b>Manufacturer</b>	Ion Science Limited	Dwyer	Extech Instruments
<b>Model</b>	Phocheck +	Mark III-475-0000 Series	407123
<b>GEI Identification No.</b>	NA	NA	NA
<b>Calibrant</b>	10 ppm Isobutylene	NA	NA
<b>Successful Calibration</b>	Yes	Zeroed before each reading	Zeroed before each reading

FIELD MEASUREMENTS				
Shed Secure?	Yes	Discharge Pressure Port		
Condensate Accumulated?	No	Velocity (ft/min)	1,631	
		Pipe Diameter (ft)	0.33	
Condensate Drained?	NA	Average Flow Rate (cfm)	139	
Shed Pressure/VOC Measurements				
Port ID	Typical Pressure Range	Pressure (in. H <sub>2</sub> O)	Typical Range of VOCs	VOC (ppb)
Manifold 12	-0.300 to -0.500	-0.275	0 to 2000	0
Manifold 13	-0.300 to -0.500	-0.291	0 to 5000	0
Manifold 14	-0.300 to -0.500	-0.279	0 to 2000	0
Combined Influent	-0.600 to -0.700	-0.606	0 to 2000	0
Effluent	0.480 to 0.600	0.558	0 to 2000	0

Comments

**Notes:**

1. Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146.
2. PID = photoionization detector.
3. ppb = parts per billion.
4. ppm = parts per million.
5. in. H<sub>2</sub>O = inches of water column.
6. ft = feet.
7. ft/min = feet per minute.
8. cfm = cubic feet per minute.
9. NA = Not Applicable.



## Weekly SSDS Mechanical Inspection Log for Capuano Center

### GENERAL INFORMATION

GEI Field Representatives: S. Slater

Date: 04/26/08

Weather: Sunny, 50°

Start-time of monitoring work: 16:50

End-time of monitoring work: 17:10

System Status: ON

### INSTRUMENTATION INFORMATION

Instrument	PID (ppb)	Manometer (in. H <sub>2</sub> O)	Hot Wire Thermo-Anemometer (ft/min)
Manufacturer	Pro-Rae Systems	Dwyer	Extech Instruments
Model	ppb-RAE	Mark III-475-0000 Series	407123
GEI Identification No.	PINE	NA	NA
Calibrant	10 ppm Isobutylene	NA	NA
Successful Calibration	Yes	Zeroed before each reading	Zeroed before each reading

### FIELD MEASUREMENTS

Shed Secure? Yes Discharge Pressure Port

Condensate Accumulated?	No	Velocity (ft/min)	1,364
Condensate Drained?	NA	Pipe Diameter (ft)	0.33
		Average Flow Rate (cfm)	117

### Shed Pressure/VOC Measurements

Port ID	Typical Pressure Range	Pressure (in. H <sub>2</sub> O)	Typical Range of VOCs	VOC (ppb)
Manifold 12	-0.300 to -0.500	-0.341	0 to 2000	0
Manifold 13	-0.300 to -0.500	-0.353	0 to 5000	55
Manifold 14	-0.300 to -0.500	-0.326	0 to 2000	128
Combined Influent	-0.600 to -0.700	-0.623	0 to 2000	30
Effluent	0.480 to 0.600	0.537	0 to 2000	13

### Comments

#### Notes:

- Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146.
- PID = photoionization detector.
- ppb = parts per billion.
- ppm = parts per million.
- in. H<sub>2</sub>O = inches of water column.
- ft = feet.
- ft/min = feet per minute.
- cfm = cubic feet per minute.
- NA = Not Applicable.

Weekly SSDS Mechanical Inspection Log for Capuano Center

GENERAL INFORMATION			
GEI Field Representatives: S. Slater		Start-time of monitoring work: 11:40	
Date: 04/11/08		End-time of monitoring work: 11:55	
Weather: Rainy, 50°		System Status: ON	

INSTRUMENTATION INFORMATION		
Instrument	Manometer (in. H <sub>2</sub> O)	Hot Wire Thermo-Anemometer (ft/min)
Manufacturer	Dwyer	Extech Instruments
Model	Mark III-475-0000 Series	407123
GEI Identification No.	NA	NA
Calibrant	NA	NA
Successful Calibration	Zeroed before each reading	Zeroed before each reading

FIELD MEASUREMENTS				
Shed Secure?	Yes	Discharge Pressure Port		
Condensate Accumulated?	No	Velocity (ft/min)	1,240	
Condensate Drained?	NA	Pipe Diameter (ft)	0.33	
		Average Flow Rate (cfm)	106	
Shed Pressure/VOC Measurements				
Port ID	Typical Pressure Range	Pressure (in. H <sub>2</sub> O)	Typical Range of VOCs	VOC (ppb)
Manifold 12	-0.300 to -0.500	-0.385	0 to 2000	NM
Manifold 13	-0.300 to -0.500	-0.395	0 to 5000	NM
Manifold 14	-0.300 to -0.500	-0.382	0 to 2000	NM
Combined Influent	-0.600 to -0.700	-0.644	0 to 2000	NM
Effluent	0.480 to 0.600	0.574	0 to 2000	NM

Comments
----------

- Notes:**
- 1. Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146.
  - 2. PID = photoionization detector.
  - 3. ppb = parts per billion.
  - 4. ppm = parts per million.
  - 5. in. H<sub>2</sub>O = inches of water column.
  - 6. ft/min = feet per minute.
  - 7. cfm = cubic feet per minute.
  - 8. NA = Not Applicable.
  - 9. NM = Not Measured.

## Weekly SSDS Mechanical Inspection Log for Capuano Center

### GENERAL INFORMATION

GEI Field Representatives: S. Slater

Date: 04/03/08

Weather: Sunny, 50°

Start-time of monitoring work: 14:00

End-time of monitoring work: 15:30

System Status: ON

### INSTRUMENTATION INFORMATION

<b>Instrument</b>	Manometer (in. H <sub>2</sub> O)	Hot Wire Thermo-Anemometer (ft/min)
<b>Manufacturer</b>	Dwyer	Extech Instruments
<b>Model</b>	Mark III-475-0000 Series	407123
<b>GEI Identification No.</b>	NA	NA
<b>Calibrant</b>	NA	NA
<b>Successful Calibration</b>	Zeroed before each reading	Zeroed before each reading

### FIELD MEASUREMENTS

Shed Secure? Yes Discharge Pressure Port

Condensate Accumulated?	<u>No</u>	Velocity (ft/min)	1,175
Condensate Drained?	<u>NA</u>	Pipe Diameter (ft)	0.33
		Average Flow Rate (cfm)	100

### Shed Pressure/VOC Measurements

Port ID	Typical Pressure Range	Pressure (in. H <sub>2</sub> O)	Typical Range of VOCs	VOC (ppb)
Manifold 12	-0.300 to -0.500	-0.440	0 to 2000	NM
Manifold 13	-0.300 to -0.500	-0.305	0 to 5000	NM
Manifold 14	-0.300 to -0.500	-0.407	0 to 2000	NM
Combined Influent	-0.600 to -0.700	-0.711	0 to 2000	NM
Effluent	0.480 to 0.600	0.563	0 to 2000	NM

### Comments

#### Notes:

1. Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146.
2. PID = photoionization detector.
3. ppb = parts per billion.
4. ppm = parts per million.
5. in. H<sub>2</sub>O = inches of water column.
6. ft/min = feet per minute.
7. cfm = cubic feet per minute.
8. NA = Not Applicable.
9. NM = Not Measured.



Weekly SSDS Mechanical Inspection Log for Capuano Center

GENERAL INFORMATION			
GEI Field Representatives:	S. Chervincky		
Date:	07/01/08	Start-time of monitoring work:	12:45
Weather:	Sunny, 85	End-time of monitoring work:	13:45
		System Status:	ON

INSTRUMENTATION INFORMATION			
Instrument	PID (ppb)	Manometer (in H <sub>2</sub> O)	Hot Wire Thermo-Anemometer (ft/min)
Manufacturer	Pro-Rae Systems	Dwyer	Extech Instruments
Model	ppb-RAE	Mark III-475-0000 Series	407123
GEI Identification No.	PINE	NA	NA
Calibrant	10 ppm Isobutylene	NA	NA
Successful Calibration	Yes	Zeroed before each reading	Zeroed before each reading

FIELD MEASUREMENTS				
Shed Secure?	Yes	Discharge Pressure Port		
Condensate Accumulated?	No	Velocity (ft/min)	1,599	
Condensate Drained?	NA	Pipe Diameter (ft)	0.33	
		Average Flow Rate (cfm)	137	
Shed Pressure/VOC Measurements				
Port ID	Typical Pressure Range	Pressure (in. H <sub>2</sub> O)	Typical Range of VOCs	VOC (ppb)
Manifold 12	-0.300 to -0.500	-0.292	0 to 2000	0
Manifold 13	-0.300 to -0.500	-0.317	0 to 5000	0
Manifold 14	-0.300 to -0.500	-0.276	0 to 2000	0
Combined Influent	-0.600 to -0.700	-0.559	0 to 2000	0
Effluent	0.480 to 0.600	0.581	0 to 2000	175

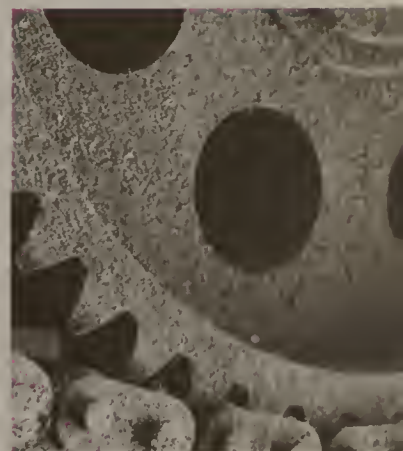
Comments

- Notes:**
- 1. Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146.
  - 2. PID = photoionization detector.
  - 3. ppb = parts per billion.
  - 4. ppm = parts per million.
  - 5. in. H<sub>2</sub>O = inches of water column.
  - 6. ft = feet.
  - 7. ft/min = feet per minute.
  - 8. cfm = cubic feet per minute.
  - 9. NA = Not Applicable.





Geotechnical  
Environmental and  
Water Resources  
Engineering







## Appendix D

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### Capuano Center – Monthly Mechanical Inspection Logs & Field Monitoring Forms





# Capuano Center Sub-Slab Depressurization System Monthly Mechanical Inspection Log

## GENERAL INFORMATION

GEI Field Representatives: S. Chervinsky  
 Date: 07/28/08  
 Weather: Sunny, 80°

Start-time of monitoring work: 10:15  
 End-time of monitoring work: 12:15  
 System Status: ON

## INSTRUMENTATION INFORMATION

Instrument	Manufacturer	Model	GEI Identification No.	Calibrant	Successful Calibration
PID (ppb)	ION Science LLC	PhoCheck+ 5000	07-01059	100 ppm Isobutylene	Yes
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0000-FM	NA	NA	Zeroed before each reading
Hot Wire Thermo-Anemometer (ft/min)	Exttech Instruments	407123	NA	NA	Zeroed before each reading

## OBSERVATIONS AND MEASUREMENTS

Shed Secure? Yes

Combined Influent Flow Rate

Condensate Accumulated? No

Velocity (ft/min)	1,476
Pipe Diameter (ft)	0.33
Average Flow Rate (cfm)	126

Condensate Drained? NA

### System Monitoring Points

Port ID	Typical Pressure Range (in. H <sub>2</sub> O)	Pressure (in. H <sub>2</sub> O)	Typical Range of VOCs (ppb)	VOC (ppb)
Manifold 12	-0.300 to -0.500	-0.299	0 to 2000	0
Manifold 13	-0.300 to -0.500	-0.307	0 to 5000	0
Manifold 14	-0.300 to -0.500	-0.292	0 to 2000	0
Combined Influent	-0.600 to -0.700	-0.606	0 to 2000	0
Effluent	0.480 to 0.600	0.563	0 to 2000	0

### Exterior Extraction Monitoring Points

Monitoring Point Identification	Status (on/off)	Manometer Reading (in. H <sub>2</sub> O)	PID Reading (ppb)
122-1	on	-0.132	NM
122-2	on	-0.142	NM
122-3	on	-0.165	NM
126-1	on	-0.131	NM
126-2	on	-0.14	NM
126-3	on	-0.179	NM
134-1	on	-0.202	NM
134-2	on	-0.121	NM
134-3	on	-0.243	NM
138-1	on	-0.118	NM
138-2	on	-0.203	NM
138-3	on	-0.173	NM
142-1	on	-0.188	NM
142-2	on	-0.187	NM
142-3	on	-0.182	NM
146-1	on	-0.158	NM
146-2	on	-0.162	NM
146-3	on	-0.158	NM

## Comments

### Notes:

- Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146.
- PID = photoionization detector.
- ppb = parts per billion.
- ppm = parts per million.
- in. H<sub>2</sub>O = inches of water column.
- ft = feet.
- ft/min = feet per minute.
- cfm = cubic feet per minute.
- NA = Not Applicable.
- NM = Not Measured.

# Capuano Center Sub-Slab Depressurization System Monthly Mechanical Inspection Log

GENERAL INFORMATION			
GEI Field Representatives:	S. Chervincky		
Date:	08/01/08	Start-time of monitoring work:	9:45
Weather:	Sunny, ~80°	End-time of monitoring work:	13:45
		System Status:	On

INSTRUMENTATION INFORMATION					
Instrument	Manufacturer	Model	GEI Identification No.	Calibrant	Successful Calibration
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0000-FM	NA	NA	Zeroed before each reading

OBSERVATIONS AND MEASUREMENTS					
Shed Secure?	Yes	Combined Influent Flow Rate			
Condensate Accumulated?	No	Velocity (ft/min)		NM	
Condensate Drained?	NA	Pipe Diameter (ft)		0.33	
		Average Flow Rate (cfm)		NA	
System Monitoring Points					
Port ID	Typical Pressure Range (in. H <sub>2</sub> O)	Pressure (in. H <sub>2</sub> O)	Typical Range of VOCs (ppb)	VOC (ppb)	
Manifold 12	-0.300 to -0.500	-0.341	0 to 2000	NM	
Manifold 13	-0.300 to -0.500	-0.355	0 to 5000	NM	
Manifold 14	-0.300 to -0.500	-0.322	0 to 2000	NM	
Combined Influent	-0.600 to -0.700	NM	0 to 2000	NM	
Effluent	0.480 to 0.600	NM	0 to 2000	NM	
Exterior Extraction Monitoring Points					
Monitoring Point Identification	Status (on/off)	Manometer Reading (in. H <sub>2</sub> O)	PID Reading (ppb)		
122-1	on	-0.153	NM		
122-2	on	-0.11	NM		
122-3	on	-0.159	NM		
126-1	on	-0.123	NM		
126-2	on	-0.144	NM		
126-3	on	-0.173	NM		
134-1	on	-0.23	NM		
134-2	on	-0.143	NM		
134-3	on	-0.244	NM		
138-1	on	-0.123	NM		
138-2	on	-0.191	NM		
138-3	on	-0.185	NM		
142-1	on	-0.199	NM		
142-2	on	-0.198	NM		
142-3	on	-0.175	NM		
146-1	on	-0.161	NM		
146-2	on	-0.159	NM		
146-3	on	-0.154	NM		

Comments

- Notes:**
- Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146.
  - PID = photoionization detector.
  - ppb = parts per billion.
  - ppm = parts per million.
  - in. H<sub>2</sub>O = inches of water column.
  - ft = feet.
  - ft/min = feet per minute.
  - cfm = cubic feet per minute.
  - NA = Not Applicable.
  - NM = Not Measured.

# Capuano Center Sub-Slab Depressurization System Monthly Mechanical Inspection Log

GENERAL INFORMATION			
GEI Field Representatives:	S. Chervinsky		
Date:	08/04/08	Start-time of monitoring work:	13:30
Weather:	Sunny, ~80°	End-time of monitoring work:	14:30
		System Status:	On

INSTRUMENTATION INFORMATION					
Instrument	Manufacturer	Model	GEI Identification No.	Calibrant	Successful Calibration
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0000-FM	NA	NA	Zeroed before each reading

OBSERVATIONS AND MEASUREMENTS				
Shed Secure?	Yes	Combined Influent Flow Rate		
Condensate Accumulated?	No	Velocity (ft/min)		NM
Condensate Drained?	NA	Pipe Diameter (ft)		0.33
		Average Flow Rate (cfm)		NA
System Monitoring Points				
Port ID	Typical Pressure Range (in. H <sub>2</sub> O)	Pressure (in. H <sub>2</sub> O)	Typical Range of VOCs (ppb)	VOC (ppb)
Manifold 12	-0.300 to -0.500	-0.348	0 to 2000	NM
Manifold 13	-0.300 to -0.500	-0.367	0 to 5000	NM
Manifold 14	-0.300 to -0.500	-0.356	0 to 2000	NM
Combined Influent	-0.600 to -0.700	-0.649	0 to 2000	NM
Effluent	0.480 to 0.600	0.548	0 to 2000	NM
Exterior Extraction Monitoring Points				
Monitoring Point Identification	Status (on/off)	Manometer Reading (in. H <sub>2</sub> O)	PID Reading (ppb)	
122-1	on	-0.196	NM	
122-2	on	-0.205	NM	
122-3	on	-0.211	NM	
126-1	on	-0.226	NM	
126-2	on	-0.189	NM	
126-3	on	-0.221	NM	
134-1	on	-0.306	NM	
134-2	on	-0.328	NM	
134-3	on	-0.295	NM	
138-1	on	-0.337	NM	
138-2	on	-0.332	NM	
138-3	on	-0.32	NM	
142-1	on	-0.262	NM	
142-2	on	-0.233	NM	
142-3	on	-0.224	NM	
146-1	on	-0.208	NM	
146-2	on	-0.209	NM	
146-3	on	-0.203	NM	

Comments

## Notes:

- Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146.
- PID = photoionization detector.
- ppb = parts per billion.
- ppm = parts per million.
- in. H<sub>2</sub>O = inches of water column.
- ft = feet.
- ft/min = feet per minute.
- cfm = cubic feet per minute.
- NA = Not Applicable.
- NM = Not Measured.



## Capuano Center Sub-Slab Depressurization System Monthly Mechanical Inspection Log

GENERAL INFORMATION			
GEI Field Representatives:	S. Slater		Start-time of monitoring work: 15:00
	S. Chervinsky		
Date:	08/18/08		End-time of monitoring work: 16:00
Weather:	Sunny, 85°		System Status: ON

INSTRUMENTATION INFORMATION					
Instrument	Manufacturer	Model	GEI Identification No.	Calibrant	Successful Calibration
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0000-FM	NA	NA	Zeroed before each reading
Hot Wire Thermo-Anemometer (ft/min)	Extech Instruments	407123	NA	NA	Zeroed before each reading

OBSERVATIONS AND MEASUREMENTS					
Shed Secure?	Yes	Combined Influent Flow Rate			
Condensate Accumulated?	No	Velocity (ft/min)		2,558	
Condensate Drained?	NA	Pipe Diameter (ft)		0.33	
		Average Flow Rate (cfm)		219	
System Monitoring Points					
Port ID	Typical Pressure Range (in. H <sub>2</sub> O)	Pressure (in. H <sub>2</sub> O)	Typical Range of VOCs (ppb)	VOC (ppb)	
Manifold 12	-0.300 to -0.500	-0.35	0 to 2000	NM	
Manifold 13	-0.300 to -0.500	-0.36	0 to 5000	NM	
Manifold 14	-0.300 to -0.500	-0.34	0 to 2000	NM	
Combined Influent	-0.600 to -0.700	-0.62	0 to 2000	NM	
Effluent	0.480 to 0.600	0.51	0 to 2000	NM	
Exterior Extraction Monitoring Points					
Monitoring Point Identification	Status (on/off)	Manometer Reading (in. H <sub>2</sub> O)	PID Reading (ppb)		
122-1	on	-0.20	NM		
122-2	on	-0.21	NM		
122-3	on	-0.23	NM		
126-1	on	-0.24	NM		
126-2	on	-0.20	NM		
126-3	on	-0.25	NM		
134-1	on	-0.33	NM		
134-2	on	-0.36	NM		
134-3	on	-0.36	NM		
138-1	on	-0.37	NM		
138-2	on	-0.33	NM		
138-3	on	-0.33	NM		
142-1	on	-0.28	NM		
142-2	on	-0.26	NM		
142-3	on	-0.25	NM		
146-1	on	-0.23	NM		
146-2	on	-0.22	NM		
146-3	on	-0.22	NM		

### Comments

The batteries died in the PID. GEI will return on 8/19/08 to take PID readings.

### Notes:

- Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146.
- PID = photoionization detector.
- ppb = parts per billion.
- ppm = parts per million.
- in. H<sub>2</sub>O = inches of water column.
- ft = feet.
- ft/min = feet per minute.
- cfm = cubic feet per minute.
- NA = Not Applicable.
- NM = Not Measured.

# Capuano Center Sub-Slab Depressurization System Monthly Mechanical Inspection Log

GENERAL INFORMATION			
GEI Field Representatives:	Chervinky		
Date:	08/19/08	Start-time of monitoring work:	11:30
Weather:	Overcast, ~70°	End-time of monitoring work:	13:15
		System Status:	ON

INSTRUMENTATION INFORMATION					
Instrument	Manufacturer	Model	GEI Identification No.	Calibrant	Successful Calibration
PID (ppb)	Pro-Rae Systems	ppb-RAE	PINE	10 ppm Isobutylene	Yes
PID (ppb)	Ion Science L.L.C.	Phocheck 5000		100 ppm Isobutylene	Yes

OBSERVATIONS AND MEASUREMENTS					
Shed Secure?	Yes	Combined Influent Flow Rate			
Condensate Accumulated?	No	Velocity (ft/min)		NM	
Condensate Drained?	NA	Pipe Diameter (ft)		0.33	
		Average Flow Rate (cfm)		0	
System Monitoring Points					
Port ID	Typical Pressure Range (in. H <sub>2</sub> O)	Pressure (in. H <sub>2</sub> O)	Typical Range of VOCs (ppb)	VOC (ppb)	
Manifold 12	-0.300 to -0.500	NM	0 to 2000	0	
Manifold 13	-0.300 to -0.500	NM	0 to 5000	0	
Manifold 14	-0.300 to -0.500	NM	0 to 2000	0	
Combined Influent	-0.600 to -0.700	NM	0 to 2000	0	
Effluent	0.480 to 0.600	NM	0 to 2000	35	
Exterior Extraction Monitoring Points					
Monitoring Point Identification	Status (on/off)	Manometer Reading (in. H <sub>2</sub> O)	PID Reading (ppbRAE)	PID Reading (ppb-Phocheck)	
122-1	ON	NM	NM	12	
122-2	ON	NM	NM	12	
122-3	ON	NM	NM	13	
126-1	ON	NM	NM	11	
126-2	ON	NM	NM	14	
126-3	ON	NM	NM	11	
134-1	ON	NM	NM	9	
134-2	ON	NM	NM	11	
134-3	ON	NM	NM	10	
138-1	ON	NM	NM	11	
138-2	ON	NM	303	15	
138-3	ON	NM	0	13.8 ppm	
142-1	ON	NM	24	9.31 ppm	
142-2	ON	NM	348	NM	
142-3	ON	NM	0	NM	
146-1	ON	NM	7	NM	
146-2	ON	NM	0	NM	
146-3	ON	NM	0	NM	

Comments
Ambient air measured at 9-15 ppb with Phocheck. Measured at 0 ppb with ppbRAE.

- Notes:**
- Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146.
  - PID = photoionization detector.
  - ppb = parts per billion.
  - ppm = parts per million.
  - in. H<sub>2</sub>O = inches of water column.
  - ft = feet.
  - ft/min = feet per minute.
  - cfm = cubic feet per minute.
  - NA = Not Applicable.
  - NM = Not Measured.

# Capuano Center Sub-Slab Depressurization System Monthly Mechanical Inspection Log

GENERAL INFORMATION			
GEI Field Representatives:	S. Chervincky		
Date:	09/02/08	Start-time of monitoring work:	12:00
Weather:	Sunny, ~80°	End-time of monitoring work:	14:00
		System Status:	ON

INSTRUMENTATION INFORMATION					
Instrument	Manufacturer	Model	GEI Identification No.	Calibrant	Successful Calibration
PID (ppb)	ION Science L.L.C.	PhoCheck 5000	07-01059	100 ppm Isobutylene	Yes
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0000-FM	NA	NA	Zeroed before each reading
Hot Wire Thermo-Anemometer (ft/min)	Extech Instruments	407123	NA	NA	Zeroed before each reading

OBSERVATIONS AND MEASUREMENTS					
Shed Secure?	Yes	Combined Influent Flow Rate			
Condensate Accumulated?	No	Velocity (ft/min)		1,495	
Condensate Drained?	NA	Pipe Diameter (ft)		0.33	
		Average Flow Rate (cfm)		128	
System Monitoring Points					
Port ID	Typical Pressure Range (in. H <sub>2</sub> O)	Pressure (in. H <sub>2</sub> O)	Typical Range of VOCs (ppb)	VOC (ppb)	
Manifold 12	-0.300 to -0.500	-0.329	0 to 2000	17	
Manifold 13	-0.300 to -0.500	-0.352	0 to 5000	16	
Manifold 14	-0.300 to -0.500	-0.321	0 to 2000	17	
Combined Influent	-0.600 to -0.700	-0.648	0 to 2000	17	
Effluent	0.480 to 0.600	0.588	0 to 2000	13	
Exterior Extraction Monitoring Points					
Monitoring Point Identification	Status (on/off)	Manometer Reading (in. H <sub>2</sub> O)	PID Reading (ppb)		
122-1	on	-0.194	NM		
122-2	on	-0.195	NM		
122-3	on	-0.197	NM		
126-1	on	-0.225	NM		
126-2	on	-0.183	NM		
126-3	on	-0.218	NM		
134-1	on	-0.306	NM		
134-2	on	-0.324	NM		
134-3	on	-0.299	NM		
138-1	on	-0.324	NM		
138-2	on	-0.327	NM		
138-3	on	-0.317	NM		
142-1	on	-0.242	NM		
142-2	on	-0.229	NM		
142-3	on	-0.219	NM		
146-1	on	-0.208	NM		
146-2	on	-0.208	NM		
146-3	on	-0.199	NM		

Comments
Ambient air measured at between 9-17ppb.

- Notes:**
- Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146.
  - PID = photoionization detector.
  - ppb = parts per billion.
  - ppm = parts per million.
  - in. H<sub>2</sub>O = inches of water column.
  - ft = feet.
  - ft/min = feet per minute.
  - cfm = cubic feet per minute.
  - NA = Not Applicable.
  - NM = Not Measured.



# Capuano Center Sub-Slab Depressurization System Field Monitoring Form

GENERAL INFORMATION			
GEI Field Representatives:	S. Slater	4/18/2008	4/21/2008
	S. Chervincky	Exterior	Interior
Date:	4/18/2008 & 4/21/2008	Start-time of monitoring work:	12:15
Weather:	Sunny, 60° both days	End-time of monitoring work:	14:00
		System Status:	ON

INSTRUMENTATION INFORMATION					
Instrument	Manufacturer	Model	GEI Identification No.	Calibrant	Successful Calibration
PID (ppb)	Pro-Rae Systems	ppb-RAE	PINE	10 ppm Isobutylene	Yes
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0000-FM	NA	NA	Zeroed before each reading
Hot Wire Thermo-Anemometer (ft/min)	Exttech Instruments	407123	NA	NA	Zeroed before each reading

FIELD MEASUREMENTS					
Exterior Extraction Monitoring Points			System Configuration		
Monitoring Point Identification	Manometer Reading (in. H <sub>2</sub> O)	PID Reading (ppb)	Extraction Point Valve Identification	Status (ON/OFF)	
122-1	-0.204	0	122-1	ON	
122-2	-0.205	0	122-2	ON	
122-3	-0.198	0	122-3	ON	
126-1	-0.243	0	126-1	ON	
126-2	-0.195	0	126-2	ON	
126-3	-0.242	0	126-3	ON	
134-1	-0.322	0	134-1	ON	
134-2	-0.348	0	134-2	ON	
134-3	-0.326	spiked to 26	134-3	ON	
138-1	-0.354	0	138-1	ON	
138-2	-0.396	0	138-2	ON	
138-3	-0.358	0	138-3	ON	
142-1	-0.286	0	142-1	ON	
142-2	-0.260	0	142-2	ON	
142-3	-0.240	spiked to 113	142-3	ON	
146-1	-0.215	0	146-1	ON	
146-2	-0.224	0	146-2	ON	
146-3	-0.234	0	146-3	ON	
Interior Sub-Slab Monitoring Points			Interior Ambient Air Measurements		
Monitoring Point Identification	Manometer Reading (in. H <sub>2</sub> O)	PID Reading (ppb)	Classroom	PID Reading (ppb)	
Room 122A	-0.025	0	122	0	
Room 126A	0.000	0	126	0	
Room 133A	0.000	61	134	0	
Room 137A	0.000	0	138	0	
Room 142A	-0.006	0	133	0	
Room 146A	-0.010	0	137	0	
			142	0	
			146	0	
Blower Enclosure Monitoring Points			Influent Flow		
	Manometer Reading (in. H <sub>2</sub> O)	PID Reading (ppb)	Velocity (ft/min)	1,325	
Manifold 12 <sup>1</sup>	-0.345	0	Pipe Diameter (ft)	0.33	
Manifold 13 <sup>1</sup>	-0.377	0	Avg Flow Rate (cfm)	113	
Manifold 14 <sup>1</sup>	-0.343	0			
Combined Influent	-0.66	0			
Effluent	0.571	90			
Blower Condensation Cleanout?			No		

## Notes:

- Manifold 12 is the manifold pipe for rooms 122 and 126. Manifold 13 is the manifold pipe for rooms 134 and 138. Manifold 14 is the manifold pipe for rooms 142 and 146.
- PID = photoionization detector.
- ppb = parts per billion.
- ppm = parts per million.
- in. H<sub>2</sub>O = inches of water column.
- ft = feet.
- ft/min = feet per minute.
- cfm = cubic feet per minute.
- NA = Not Applicable.





Geotechnical  
Environmental  
Water Resources  
Ecological







## Appendix E

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### Capuano Center – Pre-Sampling Checklists for SSDS Monthly Monitoring





# CAPUANO CENTER SUB-SLAB DEPRESSURIZATION SYSTEM PRE-SAMPLING CHECKLIST

**Date:** 4/21/2008 **Time Period:** 8:15 – 9:30 a.m. **Field Person:** S. Slater/S. Chervincky

## Building Operating Parameter Verification

1. Confirm building operating schedule (global) set to 24 hr. operation	Yes
2. Confirm outdoor air for all air handling units and unit ventilators set to minimum damper position via EMS (41% for Room 141, 32% all other rooms)	All AHUs operating at minimum damper position. UVs were not, due to free cooling (bringing in outdoor air to cool rooms) being in place. See below for actual damper percentages.
3. Confirm general exhaust fans F2 and F5 remain off	Yes
4. Confirm RTU 1 RAF set at 50%	Yes
5. Confirm RTU 1&2, AHU 1&2 operating	Yes

## Building Pressure Verification

Location Description	Time	In. H <sub>2</sub> O
Franklin Street exit	8:47	-0.013
Franklin Street Alley (Side Entrance)	8:45	-0.003
Franklin Street Alley (Service Entrance)	8:41	-0.008
Soccer Field Entrance	8:42	-0.007
Glen Street Entrance	8:44	-0.004

## Sample Location Checklist

	Room 126	Room 138	Room 141	Room 142	Room 146
Unit ventilator operating	Yes	Yes	Yes	Yes	Yes
UV min. OA damper position (EMS) <sup>1</sup>	8:30 – 81% 11:45 – 83%	8:30 – 100% 11:45 – 96%	8:30 – 75% 11:45 – 41%	8:30 – 83% 11:45 – 66%	8:30 – 86% 11:45 – 31%
Unit ventilator fan speed	High	Medium	High	High	Bolted shut
Windows closed	Yes	Yes	Yes	Yes	Yes
Bathroom door closed	Yes	Yes	Yes	Yes	Yes
Bathroom exhaust operating	Yes	Inaudible	Inaudible	Inaudible	Yes
Room door closed	Yes	Yes	Yes	Yes	Yes
Pressure wrt outdoors (in. H <sub>2</sub> O)	-0.025	-0.023	-0.024	-0.021	-0.007
Pressure wrt corridor (in. H <sub>2</sub> O)	-0.014	-0.020	-0.011	-0.022	-0.014

**CAPUANO CENTER SUB-SLAB DEPRESSURIZATION SYSTEM  
PRE-SAMPLING CHECKLIST**

**NOTES:**

1. Damper position checked at 8:30 a.m. and again at 11:45 a.m. when the EMS manager was leaving for the day.
2. EMS = energy management system
3. AHU = air handling unit
4. UV = unit ventilator
5. RTU = roof top unit
6. RAF = return air fan
7. OA = outdoor air
8. wrt = with respect to
9. in. H<sub>2</sub>O = inches of water column

**CAPUANO CENTER SUB-SLAB DEPRESSURIZATION SYSTEM  
PRE-SAMPLING CHECKLIST**

**Date:** 8/18/08      **Time Period:** 08:30 – 09:35      **Field Person:** S. Slater/S. Chervincky

**Building Operating Parameters**

1. Is the building set to 24-hour operation? If not, what is it set to?	Yes
2. What are the minimum outdoor air (OA) damper positions for all air handling units (AHU) and unit ventilators (UV)?	Rooms 126, 138, 142, and 146 set at 32% Room 141 set at 41%
3. Are general exhaust fans F2 and F5 off?	Yes
4. Is RTU 1 RAF set at 50%?	No, but C. Aliano was unable to tell me what the setting was.
5. Are RTU 1&2, AHU 1&2 operating?	Yes

**Building Pressure Verification**

Location Description	Time	In. H <sub>2</sub> O
Franklin Street exit	08:45	-0.021
Franklin Street Alley (Side Entrance)	08:49	-0.021
Franklin Street Alley (Service Entrance)	08:49	-0.021
Soccer Field Entrance	08:51	-0.009
Glen Street Entrance	08:52	-0.017

**Sample Location Checklist**

	Room 126	Room 138	Room 141	Room 142	Room 146
Unit ventilator operating	Yes	Yes	Yes	Yes	Yes
UV min OA damper position (EMS)	32%	32%	41%	32%	32%
Unit ventilator fan speed	High	Medium	High	High	Unit bolted shut
Windows closed	Yes	Yes	Yes	Yes	Yes
Bathroom door closed	Yes	Yes	Yes	Yes	Yes
Bathroom exhaust operating	Yes	Inaudible	Inaudible	Inaudible	Yes
Room door closed	Yes	Yes	Yes	Yes	Yes
Pressure wrt outdoors (in. H <sub>2</sub> O)	0.000	-0.003	-0.013	-0.013	-0.009
Pressure wrt corridor (in. H <sub>2</sub> O)	0.000	-0.003	-0.004	-0.003	0.000



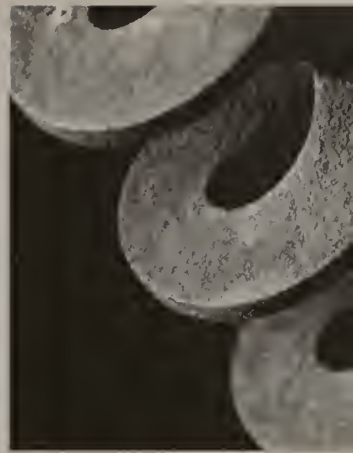
**CAPUANO CENTER SUB-SLAB DEPRESSURIZATION SYSTEM  
PRE-SAMPLING CHECKLIST**

**NOTES:**

1. EMS = Energy Management System
2. RTU = roof top unit
3. RAF = return air fan
4. wrt = with respect to
5. in.H<sub>2</sub>O = inches of water column



Geotechnical  
Environmental  
Water Resources  
Ecological







## **Appendix F**

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### **Capuano Center – Indoor/Outdoor Sampling Laboratory Data Reports and Summa Canister Certifications (On enclosed CD)**



**Immediate Response Action Status Report No. 6  
and Remedial Monitoring Report No. 9**  
Appendices F, H, K, N, O, Q, and R  
50 Tufts Street, Somerville, MA  
GEI Project No. 04516-13

For: UniFirst Corporation  
68 Jonspin Road  
Wilmington, MA 01887

November 10, 2008

Prepared by:









Geotechnical  
Environmental  
Water Resources  
Ecological





## Appendix G

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### Capuano Center – Indoor Air Sampling Checklists and Photo Logs





GEI



## Indoor Air Sampling Checklist

Sampling Location:  
**Capuano Center**

Sample ID: **045162-150Glen-Roof**

Date:	<b>21-Apr-08</b>	Sample Type:	<b>Outdoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M105</b>	Sampling Start Time:	<b>9:32 AM</b>
Flow Regulator ID:	<b>MFC49</b>	Sampling Finish Time:	<b>1:36 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>6</b>

Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>56</b>	<b>61</b>
Barometric Pressure (in. Hg):	<b>30.30</b>	<b>30.30</b>
Prevailing Wind Direction:	<b>NE</b>	<b>NE</b>
General Weather Conditions:	<b>Mostly cloudy</b>	<b>Sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>NA</b>	<b>NA</b>
Barometric Pressure (in. Hg):	<b>NA</b>	<b>NA</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any classrooms occupied during sampling? **No**  
If yes, provide detail:

Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**NA = Not Applicable**

Air intake at **1' 5"** above the floor.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**Capuano Center**

Sample ID: 045162-150Glen-Rm126

Date: **21-Apr-08**

Sample Type: **Indoor**

Sampling Personnel: **S. Slater**

Analysis Method: **TO-15**

Summa Canister ID: **M006**

Sampling Start Time: **9:38 AM**

Flow Regulator ID: **MC115**

Sampling Finish Time: **1:43 PM**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>31</b>	<b>5</b>

Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>56</b>	<b>61</b>
Barometric Pressure (in. Hg):	<b>30.30</b>	<b>30.30</b>
Prevailing Wind Direction:	<b>NE</b>	<b>NE</b>
General Weather Conditions:	<b>Mostly cloudy</b>	<b>Sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>74.8</b>	<b>80.0</b>
Barometric Pressure (in. Hg):	<b>30.31</b>	<b>30.30</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **Yes**

Windows open? **No** Ventilation fans? **Yes**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any classrooms occupied during sampling? **Yes**  
If yes, provide detail:

**Custodians**

Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**The building was operating in "free cooling" mode. During free cooling, the unit ventilators pull in outdoor air to cool the building instead of using the air conditioning (mechanical cooling). This is normal HVAC operation.**

Air intake at **3' 10"** above the floor.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**Capuano Center**

Sample ID: **045162-150Glen-Rm138**

Date:	<b>21-Apr-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M027</b>	Sampling Start Time:	<b>9:43 AM</b>
Flow Regulator ID:	<b>MC131</b>	Sampling Finish Time:	<b>1:46 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29.5</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>56</b>	<b>61</b>
Barometric Pressure (in. Hg):	<b>30.30</b>	<b>30.30</b>
Prevailing Wind Direction:	<b>NE</b>	<b>NE</b>
General Weather Conditions:	<b>Mostly cloudy</b>	<b>Sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>77</b>	<b>77</b>
Barometric Pressure (in. Hg):	<b>30.32</b>	<b>30.30</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **Yes**

Windows open? **No** Ventilation fans? **Yes**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any classrooms occupied during sampling? **Yes**  
If yes, provide detail:

**Custodians**

Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**The building was operating in "free cooling" mode. During free cooling, the unit ventilators pull in outdoor air to cool the building instead of using the air conditioning (mechanical cooling). This is normal HVAC operation.**

Air intake at **3' 7"** above the floor.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**Capuano Center**

Sample ID: **045162-150Glen-Rm139**

Date:	<b>21-Apr-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M108</b>	Sampling Start Time:	<b>9:43 AM</b>
Flow Regulator ID:	<b>MC124</b>	Sampling Finish Time:	<b>1:46 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29.5</b>	<b>5</b>

Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>56</b>	<b>61</b>
Barometric Pressure (in. Hg):	<b>30.30</b>	<b>30.30</b>
Prevailing Wind Direction:	<b>NE</b>	<b>NE</b>
General Weather Conditions:	<b>Mostly cloudy</b>	<b>Sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>77</b>	<b>77</b>
Barometric Pressure (in. Hg):	<b>30.32</b>	<b>30.30</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **Yes**

Windows open? **No** Ventilation fans? **Yes**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any classrooms occupied during sampling? **Yes**  
If yes, provide detail:

**Custodians**

Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**The building was operating in "free cooling" mode. During free cooling, the unit ventilators pull in outdoor air to cool the building instead of using the air conditioning (mechanical cooling). This is normal HVAC operation.**

Air intake at **3' 7"** above the floor.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**Capuano Center**

Sample ID: **045162-150Glen-Rm141**

Date:	<b>21-Apr-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M107</b>	Sampling Start Time:	<b>9:48 AM</b>
Flow Regulator ID:	<b>MC035</b>	Sampling Finish Time:	<b>2:06 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>56</b>	<b>61</b>
Barometric Pressure (in. Hg):	<b>30.30</b>	<b>30.30</b>
Prevailing Wind Direction:	<b>NE</b>	<b>NE</b>
General Weather Conditions:	<b>Mostly cloudy</b>	<b>Sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>70.8</b>	<b>68.3</b>
Barometric Pressure (in. Hg):	<b>30.32</b>	<b>30.30</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **Yes**

Windows open? **No** Ventilation fans? **Yes**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any classrooms occupied during sampling? **Yes**  
If yes, provide detail:

**Custodians**


Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**The building was operating in "free cooling" mode. During free cooling, the unit ventilators pull in outdoor air to cool the building instead of using the air conditioning (mechanical cooling). This is normal HVAC operation.**

Air intake at **3' 10"** above the floor.

NM=Not Measured

	<h2 style="text-align: center;">Indoor Air Sampling Checklist</h2>		Sampling Location: <b>Capuano Center</b>
		Sample ID: <b>045162-150Glen-Rm142</b>	
Date:	<b>21-Apr-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M106</b>	Sampling Start Time:	<b>9:52 AM</b>
Flow Regulator ID:	<b>MC108</b>	Sampling Finish Time:	<b>2:07 PM</b>
Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>	
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>5</b>	
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>	
Temperature (°F):	<b>56</b>	<b>61</b>	
Barometric Pressure (in. Hg):	<b>30.30</b>	<b>30.30</b>	
Prevailing Wind Direction:	<b>NE</b>	<b>NE</b>	
General Weather Conditions:	<b>Mostly cloudy</b>	<b>Sunny</b>	
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>	
Temperature (°F):	<b>73</b>	<b>76.1</b>	
Barometric Pressure (in. Hg):	<b>30.32</b>	<b>30.30</b>	
<p>Did Summa Canister go to ambient pressure? <b>No</b></p> <p>PID readings at sample location (ppb): <b>0</b></p> <p>Photographs taken before sampling by: <b>S. Slater</b></p> <p>Was the building aired out prior to sample collection? <b>Yes</b></p> <p>Windows open? <b>No</b>      Ventilation fans? <b>Yes</b></p> <p>Was there significant precipitation within 12 hours of (or during) the sampling event? <b>No</b></p>			
Were any classrooms occupied during sampling? <b>Yes</b> If yes, provide detail:  <b>Custodians</b>		Did any occupants NOT follow instructions? <b>No</b> If yes, describe:	
<p>Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.</p> <p><b>The building was operating in "free cooling" mode. During free cooling, the unit ventilators pull in outdoor air to cool the building instead of using the air conditioning (mechanical cooling). This is normal HVAC operation.</b></p> <p>Air intake at <b>4'</b> above the floor.</p> <p style="text-align: right;">NM=Not Measured</p>			





## Indoor Air Sampling Checklist

Sampling Location:  
**Capuano Center**

Sample ID: **045162-150Glen-Rm146**

Date:	<b>21-Apr-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M169</b>	Sampling Start Time:	<b>9:55 AM</b>
Flow Regulator ID:	<b>MC132</b>	Sampling Finish Time:	<b>2:05 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>56</b>	<b>61</b>
Barometric Pressure (in. Hg):	<b>30.30</b>	<b>30.30</b>
Prevailing Wind Direction:	<b>NE</b>	<b>NE</b>
General Weather Conditions:	<b>Mostly cloudy</b>	<b>Sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>73</b>	<b>74.3</b>
Barometric Pressure (in. Hg):	<b>30.32</b>	<b>30.30</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **Yes**

Windows open? **No** Ventilation fans? **Yes**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any classrooms occupied during sampling? **Yes**

If yes, provide detail:

**Custodians**

Did any occupants NOT follow instructions? **No**

If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**The building was operating in "free cooling" mode. During free cooling, the unit ventilators pull in outdoor air to cool the building instead of using the air conditioning (mechanical cooling). This is normal HVAC operation.**

Air intake at **3' 4"** above the floor.

NM=Not Measured



**Air Sampling: Capuano Center (April 21, 2008)**



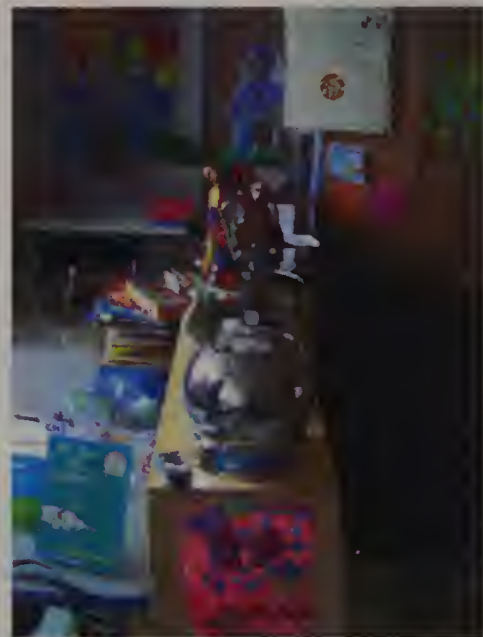
045162-150Glen-Roof



045162-150Glen-Rm126



045162-150Glen-Rm138 & Rm139



045162-150Glen-Rm142



045162-150Glen-Rm142



045162-150Glen-Rm146



## Indoor Air Sampling Checklist

Sampling Location:  
**Capuano Center**

Sample ID: **045162-150Glen-Roof**

Date:	<b>18-Aug-08</b>	Sample Type:	<b>Outdoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M103</b>	Sampling Start Time:	<b>9:04 AM</b>
Flow Regulator ID:	<b>MC088</b>	Sampling Finish Time:	<b>1:05 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5</b>

Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>83.8</b>	<b>88.1</b>
Barometric Pressure (in. Hg):	<b>29.85</b>	<b>29.79</b>
Prevailing Wind Direction:	<b>W</b>	<b>W</b>
General Weather Conditions:	<b>Sunny</b>	<b>Mostly sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>NA</b>	<b>NA</b>
Barometric Pressure (in. Hg):	<b>NA</b>	<b>NA</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **13**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any classrooms occupied during sampling? **No**  
If yes, provide detail:

Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**NA = Not Applicable**

Air intake at **1' 4"** above the floor.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**Capuano Center**

Sample ID: **045162-150Glen-Rm126**

Date:	<b>18-Aug-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M218</b>	Sampling Start Time:	<b>9:14 AM</b>
Flow Regulator ID:	<b>MC135</b>	Sampling Finish Time:	<b>1:22 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5</b>

Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>83.8</b>	<b>88.1</b>
Barometric Pressure (in. Hg):	<b>29.85</b>	<b>29.79</b>
Prevailing Wind Direction:	<b>W</b>	<b>W</b>
General Weather Conditions:	<b>Sunny</b>	<b>Mostly sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>74.8</b>	<b>72.3</b>
Barometric Pressure (in. Hg):	<b>29.86</b>	<b>29.83</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **11**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **Yes**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any classrooms occupied during sampling? **Yes**  
If yes, provide detail:

**Custodians**

Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 2"** above the floor.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**Capuano Center**

Sample ID: **045162-150Glen-Rm138**

Date: **18-Aug-08** Sample Type: **Indoor**  
Sampling Personel: **S. Slater** Analysis Method: **TO-15**  
Summa Canister ID: **M210** Sampling Start Time: **9:28 AM**  
Flow Regulator ID: **MC049** Sampling Finish Time: **2:00 PM**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>4</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>83.8</b>	<b>88.1</b>
Barometric Pressure (in. Hg):	<b>29.85</b>	<b>29.79</b>
Prevailing Wind Direction:	<b>W</b>	<b>W</b>
General Weather Conditions:	<b>Sunny</b>	<b>Mostly sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>73.5</b>	<b>71.4</b>
Barometric Pressure (in. Hg):	<b>29.86</b>	<b>29.83</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **13**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **Yes**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any classrooms occupied during sampling? **Yes**

If yes, provide detail:

**Custodians**

Did any occupants NOT follow instructions? **No**

If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 6"** above the floor.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**Capuano Center**

Sample ID: 045162-150Glen-Rm139

Date:	<b>18-Aug-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M212</b>	Sampling Start Time:	<b>9:28 AM</b>
Flow Regulator ID:	<b>MC108</b>	Sampling Finish Time:	<b>2:00 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>4</b>

Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>83.8</b>	<b>88.1</b>
Barometric Pressure (in. Hg):	<b>29.85</b>	<b>29.79</b>
Prevailing Wind Direction:	<b>W</b>	<b>W</b>
General Weather Conditions:	<b>Sunny</b>	<b>Mostly sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>73.5</b>	<b>71.4</b>
Barometric Pressure (in. Hg):	<b>29.86</b>	<b>29.83</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **13**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **Yes**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any classrooms occupied during sampling? **Yes**

If yes, provide detail:

**Custodians**

Did any occupants NOT follow instructions? **No**

If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 6"** above the floor.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**Capuano Center**

Sample ID: **045162-150Glen-Rm141**

Date:	<b>18-Aug-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M150</b>	Sampling Start Time:	<b>9:31 AM</b>
Flow Regulator ID:	<b>MC134</b>	Sampling Finish Time:	<b>1:32 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>83.8</b>	<b>88.1</b>
Barometric Pressure (in. Hg):	<b>29.85</b>	<b>29.79</b>
Prevailing Wind Direction:	<b>W</b>	<b>W</b>
General Weather Conditions:	<b>Sunny</b>	<b>Mostly sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>69.2</b>	<b>69.6</b>
Barometric Pressure (in. Hg):	<b>29.86</b>	<b>29.83</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **11**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **Yes**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any classrooms occupied during sampling? **Yes**

If yes, provide detail:

**Custodians**

Did any occupants NOT follow instructions? **No**

If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4'** above the floor.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**Capuano Center**

Sample ID: 045162-150Glen-Rm142

Date: **18-Aug-08**

Sample Type: **Indoor**

Sampling Personnel: **S. Slater**

Analysis Method: **TO-15**

Summa Canister ID: **M007**

Sampling Start Time: **9:35 AM**

Flow Regulator ID: **MC125**

Sampling Finish Time: **1:18 PM**

Pressure gauge reading:

Pre-opening

Post-collection

Summa Canister Vacuum (in. Hg):

**28**

**5**

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature (°F):

**83.8**

**88.1**

Barometric Pressure (in. Hg):

**29.85**

**29.79**

Prevailing Wind Direction:

**W**

**W**

General Weather Conditions:

**Sunny**

**Mostly sunny**

Environmental Conditions (Inside):

Before Sampling

After Sampling

Temperature (°F):

**71.4**

**70.7**

Barometric Pressure (in. Hg):

**29.86**

**29.83**

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **13**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **Yes**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any classrooms occupied during sampling? **Yes**

If yes, provide detail:

**Custodians were present.**

Did any occupants NOT follow instructions? **No**


If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4'** above the floor.

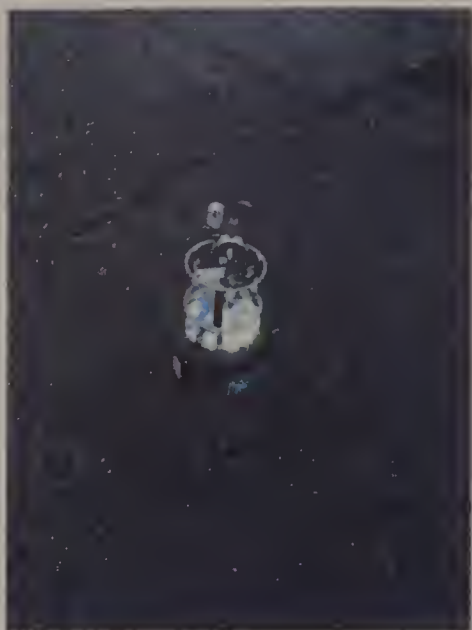
NM=Not Measured



	<h2 style="text-align: center;">Indoor Air Sampling Checklist</h2>	<p>Sampling Location: <b>Capuano Center</b></p>																													
		<p>Sample ID: <b>045162-150Glen-Rm146</b></p>																													
<p>Date: <b>18-Aug-08</b></p> <p>Sampling Personnel: <b>S. Slater</b></p> <p>Summa Canister ID: <b>M148</b></p> <p>Flow Regulator ID: <b>MC144</b></p>	<p>Sample Type: <b>Indoor</b></p> <p>Analysis Method: <b>TO-15</b></p> <p>Sampling Start Time: <b>9:38 AM</b></p> <p>Sampling Finish Time: <b>1:33 PM</b></p>																														
<p>Pressure gauge reading:</p> <p>Summa Canister Vacuum (in. Hg):</p> <p>Environmental Conditions (Outside):</p> <p>Temperature (°F):</p> <p>Barometric Pressure (in. Hg):</p> <p>Prevailing Wind Direction:</p> <p>General Weather Conditions:</p> <p>Environmental Conditions (Inside):</p> <p>Temperature (°F):</p> <p>Barometric Pressure (in. Hg):</p>	<table border="1"> <thead> <tr> <th></th> <th><u>Pre-opening</u></th> <th><u>Post-collection</u></th> </tr> </thead> <tbody> <tr> <td>Summa Canister Vacuum (in. Hg):</td> <td><b>29</b></td> <td><b>5</b></td> </tr> <tr> <td>Environmental Conditions (Outside):</td> <td><u>Before Sampling</u></td> <td><u>After Sampling</u></td> </tr> <tr> <td>Temperature (°F):</td> <td><b>83.8</b></td> <td><b>88.1</b></td> </tr> <tr> <td>Barometric Pressure (in. Hg):</td> <td><b>29.85</b></td> <td><b>29.79</b></td> </tr> <tr> <td>Prevailing Wind Direction:</td> <td><b>W</b></td> <td><b>W</b></td> </tr> <tr> <td>General Weather Conditions:</td> <td><b>Sunny</b></td> <td><b>Mostly sunny</b></td> </tr> <tr> <td>Environmental Conditions (Inside):</td> <td><u>Before Sampling</u></td> <td><u>After Sampling</u></td> </tr> <tr> <td>Temperature (°F):</td> <td><b>71.9</b></td> <td><b>70.5</b></td> </tr> <tr> <td>Barometric Pressure (in. Hg):</td> <td><b>29.86</b></td> <td><b>29.83</b></td> </tr> </tbody> </table>		<u>Pre-opening</u>	<u>Post-collection</u>	Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5</b>	Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>	Temperature (°F):	<b>83.8</b>	<b>88.1</b>	Barometric Pressure (in. Hg):	<b>29.85</b>	<b>29.79</b>	Prevailing Wind Direction:	<b>W</b>	<b>W</b>	General Weather Conditions:	<b>Sunny</b>	<b>Mostly sunny</b>	Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>	Temperature (°F):	<b>71.9</b>	<b>70.5</b>	Barometric Pressure (in. Hg):	<b>29.86</b>	<b>29.83</b>
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<p>Did Summa Canister go to ambient pressure? <b>No</b></p> <p>PID readings at sample location (ppb): <b>12</b></p> <p>Photographs taken before sampling by: <b>S. Slater</b></p> <p>Was the building aired out prior to sample collection? <b>No</b></p> <p>Windows open? <b>No</b>      Ventilation fans? <b>Yes</b></p> <p>Was there significant precipitation within 12 hours of (or during) the sampling event? <b>No</b></p>																															
<p>Were any classrooms occupied during sampling? <b>Yes</b></p> <p>If yes, provide detail:</p> <p><b>Custodians</b></p>	<p>Did any occupants NOT follow instructions? <b>No</b></p> <p>If yes, describe:</p>																														
<p>Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.</p> <p>Air intake at <b>3' 5"</b> above the floor.</p> <p style="text-align: right;">NM=Not Measured</p>																															



Air Sampling: Capuano Center (August 18, 2008)



045162-150Glen-Roof



045162-150Glen-Rm126



045162-150Glen-Rm138 & Rm139



045162-150Glen-Rm141



045162-150Glen-Rm142



045162-150Glen-Rm146



Geotechnical  
Environmental and  
Water Resources  
Engineering







## **Appendix H**

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**Residential and Commercial Properties – Indoor Air Sampling  
Laboratory Data Reports and Summa Canister Certifications (On  
enclosed CD)**





Geotechnical  
Environmental and  
Water Resources  
Engineering







## Appendix I

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### Residential Properties – Pre-Sampling Checklists, Indoor Air Sampling Checklists, and Photo Logs





# PRE-SAMPLING FIELD CHECKLIST FOR INDOOR AIR SAMPLING

Survey Completed by: Naomi Slagowski

Date: 7/25/08

Site Name: Tufts Street

Case #: \_\_\_\_\_

## Part I - Occupants

Building Address: 45-47 Tufts Street, Unit 1

Property Contact: Matt Newhall Owner / Renter / other: Real Estate Agent

Contact's Phone: home ( ) \_\_\_\_\_ work (781) 599-1776 cell (781) 974-7379

Building occupants: Children under age 13 0 Children age 13-18 0 Adults 0

## Part II - Building Characteristics

Building type: single-family residential / multi-family residential / office / strip mall / commercial / industrial

Describe building: The building has two stories, with two units per floor. The building has vinyl siding.

Number of floors - below grade: 1 (full basement) / crawl space / slab) at or above grade: 2

Basement size: 2013 ft<sup>2</sup> Basement floor: concrete / dirt / floating / other (specify): \_\_\_\_\_

Foundation type: finished basement / full basement / partial basement / crawl space / slab on grade

Foundation materials: poured concrete / cinder blocks / stone / other (specify) \_\_\_\_\_

Foundation integrity: no crack or open joints / moderate cracks or open joints / many cracks or open joints

Basement / slab floor: concrete; good integrity / concrete with cracks / earthen floor / carpet or flooring

Basement use: storage; infrequent use / recreation or living space / bedrooms / other (specify) \_\_\_\_\_

Type of ground cover around outside of building: grass / concrete / asphalt / other (specify) mulch

Moisture conditions in basement: wet / damp / dry / other (specify) \_\_\_\_\_

Basement sump present? Yes/No Sump pump? Yes/No Standing water in sump? Yes/No Product in sump? Yes/No

Type of heating system (circle all that apply):

hot air circulation      hot air radiation      wood      steam radiation      hot water radiation  
kerosene heater      electric baseboard      heat pump      other (specify): forced hot air

Type of ventilation system (circle all that apply):

central air conditioning      mechanical fans      bathroom ventilation fans  
individual air conditioning units      kitchen range hood fan      other (specify): none

Type of fuel utilized (circle all that apply):

Natural gas / electric / fuel oil / wood / coal / solar / kerosene / outside (fresh) air intake

Septic system? Yes / Yes (but not used) / No Irrigation/private well? Yes / Yes (but not used) / No

Existing subsurface depressurization (radon) system in place? Yes / No and running? Yes / No  
 Has the building been weatherized with any of the following:  
 insulation / storm windows / energy efficient windows Other (specify): \_\_\_\_\_

Comments:

There are double pane windows that look less than 10 years old. There has recently been a complete renovation of the unit. There are all new floors, paint, kitchen (with new appliances and cabinets) and bath. The electricity and water are shut off, as there is no one lives there, and the unit is for sale. Water shut-off signs are from the winter, so the unit has been unoccupied for at least half a year. There are empty fuel oil tanks in the basement.

### Part III - Outside Contaminant Sources

MADEP Comprehensive Site List (1000-ft. radius): 50 Tufts Street

Other stationary sources nearby (gas stations, emission stacks, etc.): A diesel railroad is across the street.

Heavy vehicular traffic nearby (or other mobile sources): McGrath Highway and Washington Street are within a two to three block distance.

### Part IV – Indoor Contaminant Sources – *Use additional sheets if necessary*

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor & room), and whether the item was removed from the building 48 hours prior to indoor air sampling event.

Potential Sources	Location(s)	Removed Prior to Sampling? (Yes / No / NA)
Gasoline storage cans	No	NA
Gas-powered equipment	No	NA
Kerosene storage cans	No	NA
Paints / thinners / strippers	No	NA
Cleaning solvents	No	NA
Oven cleaners	No	NA
Carpet / upholstery cleaners	No	NA
Other house cleaning products	No	NA
Moth balls	No	NA
Polishes / waxes	No	NA
Insecticides	No	NA
Furniture / floor polish	No	NA
Nail polish / polish remover	No	NA
Hairspray	No	NA
Cologne / perfume	No	NA
Air fresheners	No	NA
Fuel tank (inside building).2, empty	If Yes is, is there an odor near tank? <u>None</u> /weak/strong	NA
Wood stove or fireplace	No	NA
New furniture / upholstery	No	NA
New carpeting / flooring	Yes – new hardwood floors	NA
Recent painting in building?	Yes	NA
Hobbies - glues, paints, etc.	No	NA



**Part V – PID Screening - Use additional sheets if necessary**

PID screening of annular space around utility pipes through basement wall / floor? Yes / no not accessible

PID screening of cracks in wall/ floor and/or wall/floor interface: Yes / no / not accessible / no cracks

PID screening above space above drain sump? Not applicable / Yes / no / not accessible

Results of screening / comments :

**There were very low readings throughout, around 15 ppb (this is within the “zero” range of the PID used).**

**Part V – Miscellaneous Items - Use additional sheets if necessary**

Do any occupants of the building smoke? Yes / No N/A How often? \_\_\_\_\_

Has anyone smoked within the building within the last 48 hours? Yes / No

Does the building have an attached garage? Yes / No

If so, is a car usually parked in the garage? Yes / No

Do the occupants of the building have their clothes dry-cleaned? Yes / No

When were dry-cleaned clothes last brought into the building? \_\_\_\_\_

Have the occupants ever noticed any unusual odors in the building? N/A Yes / No

Describe (with location): \_\_\_\_\_

Any known spills of a chemical immediately outside or inside the building? Yes / No

Describe (with location): \_\_\_\_\_

Have any pesticides/herbicides been applied around the building foundation or in the yard/gardens? Yes / No

If so, when and which chemicals? Pesticide application is unknown, there are no occupants.

What is the quantity of goods in the basement? As in, if we were to temporarily store all of the goods from the basement,

approximately how large of an area would we need? The basement is empty, there are no occupants.



# PRE-SAMPLING FIELD CHECKLIST FOR INDOOR AIR SAMPLING

Survey Completed by: Naomi Slagowski

Date: 7/25/08

Site Name: Tufts Street

Case #: \_\_\_\_\_

## Part I - Occupants

Building Address: 51-51A Tufts Street

Property Contact: Maria De Silva Owner / Renter ☒ other Daughter of owner

Contact's Phone: home or cell: (781)844-5553

Building occupants: Children under age 13 0 Children age 13-18 0 Adults 2

## Part II - Building Characteristics

Building type: single-family residential / ☒ multi-family residential / office / strip mall / commercial / industrial

Describe building: The building has two stories, with two units and an additional attic. The building has vinyl siding.

Number of floors - below grade: 1 ☒ (full basement) / crawl space / slab) at or above grade: 2

Basement size: 1107 ft<sup>2</sup> Basement floor: ☒ concrete / dirt / floating / other (specify): \_\_\_\_\_

Foundation type: ☒ partially finished basement / ☒ full basement / partial basement / crawl space / slab on grade

Foundation materials: poured concrete / cinder blocks / ☒ stone / other (specify) \_\_\_\_\_

Foundation integrity: no crack or open joints / ☒ moderate cracks or open joints / many cracks or open joints

Basement / slab floor: ☒ concrete; good integrity / concrete with cracks / earthen floor / carpet or flooring

Basement use: ☒ storage; infrequent use / recreation or living space / bedrooms / other (specify) \_\_\_\_\_

Type of ground cover around outside of building ☒ grass / ☒ concrete / ☒ asphalt / other (specify) \_\_\_\_\_

Moisture conditions in basement: wet / damp / ☒ dry / other (specify) \_\_\_\_\_

Basement sump present? Yes ☒ No Sump pump? Yes/No Standing water in sump? Yes/No Product in sump? Yes/No

Type of heating system (circle all that apply):

hot air circulation      hot air radiation      wood      steam radiation      hot water radiation  
kerosene heater      electric baseboard      heat pump      other (specify): hot water baseboard circulation

Type of ventilation system (circle all that apply):

☒ central air conditioning      mechanical fans      ☒ bathroom ventilation fans  
☒ individual air conditioning units      ☒ kitchen range hood fan      other (specify): none

Type of fuel utilized (circle all that apply):

☒ Natural gas / electric / fuel oil / wood / coal / solar / kerosene / outside (fresh) air intake

Septic system? Yes / Yes (but not used) / ☒ No Irrigation/private well? Yes / Yes (but not used) / ☒ No

Existing subsurface depressurization (radon) system in place? Yes / No Building address: 51-51A Tufts Street  
 Has the building been weatherized with any of the following: and running? Yes / No  
insulation / storm windows / energy efficient windows Other (specify): \_\_\_\_\_

Comments:

There has been a recent renovation with new windows, floors, walls, and cabinets due to termites. The basement was treated for termites around January 2008.

### Part III - Outside Contaminant Sources

MADEP Comprehensive Site List (1000-ft. radius): 50 Tufts Street

Other stationary sources nearby (gas stations, emission stacks, etc.): A diesel railroad is across the street.

Heavy vehicular traffic nearby (or other mobile sources): McGrath Highway and Washington Street are within a two to three block distance.

### Part IV – Indoor Contaminant Sources – Use additional sheets if necessary

Identify all potential indoor sources found in the building (including attached garages), the location of the source (floor & room), and whether the item was removed from the building 48 hours prior to indoor air sampling event.

Potential Sources	Location(s)	Removed Prior to Sampling? (Yes / No / NA)
Gasoline storage cans	No	No
Gas-powered equipment	No	No
Kerosene storage cans	No	No
<u>Paints</u> <u>thinners</u> <u>strippers</u>	~ 6 gallons in basement	No
Cleaning solvents	No	No
Oven cleaners	No	No
Carpet <u>upholstery cleaners</u>	1 can "Blue Coral Dri-Clean Plus" under kitchen sink.	No
Other house cleaning products	~ 4 gallons	No
Moth balls	No	No
Polishes / waxes	No	No
Insecticides	Yes – termite insecticide in pellets in basement floor	No
<u>Furniture</u> / floor polish	1 can Pledge	No
Nail polish / polish remover	No	No
Hairspray	No	No
Cologne / perfume	No	No
Air fresheners	Yes, two cans	No
Fuel tank (inside building).	No	NA
Wood stove or fireplace	No	NA
New furniture / upholstery	No	No
New carpeting / flooring	Yes – new hardwood floors	NA
Recent painting in building?	Yes, within the last six months	NA
Hobbies - glues, paints, etc.	No	No



**Part V – PID Screening - Use additional sheets if necessary**

PID screening of annular space around utility pipes through basement wall / floor? ☒ Yes / no / not accessible

PID screening of cracks in wall/ floor and/or wall/floor interface: ☒ Yes / no / not accessible / no cracks

PID screening above space above drain sump? ☒ Not applicable / Yes / no / not accessible

Results of screening / comments :

**There were very low readings throughout, around 20ppb (this is within the “zero” range of the PID used).**

**Part V – Miscellaneous Items - Use additional sheets if necessary**

Do any occupants of the building smoke? Yes ☒ No How often? \_\_\_\_\_

Has anyone smoked within the building within the last 48 hours? Yes ☒ No

Does the building have an attached garage? Yes ☒ No

If so, is a car usually parked in the garage? Yes ☒ No

Do the occupants of the building have their clothes dry-cleaned? Yes ☒ No

When were dry-cleaned clothes last brought into the building? \_\_\_\_\_

Have the occupants ever noticed any unusual odors in the building? ☒ Yes / No

Describe (with location): Odors from a sewer pipe backup or breakage have been noticed in the building.

Any known spills of a chemical immediately outside or inside the building? Yes ☒ No

Describe (with location): \_\_\_\_\_

Have any pesticides/herbicides been applied around the building foundation or in the yard/gardens? ☒ Yes / No

If so, when and which chemicals? Termite insecticide was applied around January 2008.

What is the quantity of goods in the basement? As in, if we were to temporarily store all of the goods from the basement, approximately how large of an area would we need? Approximately one small U-Haul trailer would be needed to store a small couch, dining table and chairs, and large appliances for a small kitchen and laundry.





## Indoor Air Sampling Checklist

Sampling Location:  
**19-19A Morton Street**

Sample ID: **045162-19mort-1**

Date:	<b>04-Apr-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>C. Malagrida</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M066</b>	Sampling Start Time:	<b>8:38 AM</b>
Flow Regulator ID:	<b>MC127</b>	Sampling Finish Time:	<b>12:30 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>5.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>42.6</b>	<b>43.8</b>
Barometric Pressure (in. Hg):	<b>29.80</b>	<b>29.63</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>Calm</b>
General Weather Conditions:	<b>Rain</b>	<b>Rain</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>59.7</b>	<b>61.8</b>
Barometric Pressure (in. Hg):	<b>29.79</b>	<b>29.60</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **NM**

Photographs taken before sampling by: **N/A**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No** If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 11"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**19-19A Morton Street**

Sample ID: **045162-19mort-B**

Date:	<b>04-Apr-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>C. Malagrida</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M069</b>	Sampling Start Time:	<b>8:42 AM</b>
Flow Regulator ID:	<b>MC092</b>	Sampling Finish Time:	<b>12:33 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>4</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>42.6</b>	<b>43.8</b>
Barometric Pressure (in. Hg):	<b>29.80</b>	<b>29.63</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>Calm</b>
General Weather Conditions:	<b>Rain</b>	<b>Rain</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>59.5</b>	<b>63.6</b>
Barometric Pressure (in. Hg):	<b>29.79</b>	<b>29.60</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **NM**

Photographs taken before sampling by: **N/A**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 10"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**163 Glen Street**

Sample ID: **045162-163Glen-1A**

Date:	<b>04-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M028</b>	Sampling Start Time:	<b>11:26 AM</b>
Flow Regulator ID:	<b>MFC057</b>	Sampling Finish Time:	<b>1:46 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>6</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>58.4</b>	<b>58.1</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.77</b>
Prevailing Wind Direction:	<b>E</b>	<b>E</b>
General Weather Conditions:	<b>Rainy</b>	<b>Rainy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>72.3</b>	<b>70.7</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.78</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **Yes**

Windows open? **No** Ventilation fans? **Yes**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **Yes**

If yes, provide detail:

**American Legion members upstairs**

Did any of the occupants NOT follow instruction for residents? **Yes** If yes, describe:

**The doors were opened repeatedly.**

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 10"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**163 Glen Street**

Sample ID: **045162-163Glen-1B**

Date:	<b>04-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Chervinky</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M106</b>	Sampling Start Time:	<b>11:33 AM</b>
Flow Regulator ID:	<b>MC096</b>	Sampling Finish Time:	<b>3:40 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>58.4</b>	<b>58.1</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.77</b>
Prevailing Wind Direction:	<b>E</b>	<b>E</b>
General Weather Conditions:	<b>Rainy</b>	<b>Rainy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>73.4</b>	<b>71.4</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>25.78</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Chervinky**

Was the building aired out prior to sample collection? **Yes**

Windows open? **No** Ventilation fans? **Yes**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **Yes**  
If yes, provide detail:

**American legion members**

Did any of the occupants NOT follow instruction for residents? **Yes** If yes, describe:

**Doors opened repeatedly**

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 9"** above the floor.

\* Estimated reading beyond gauge pressure markings.

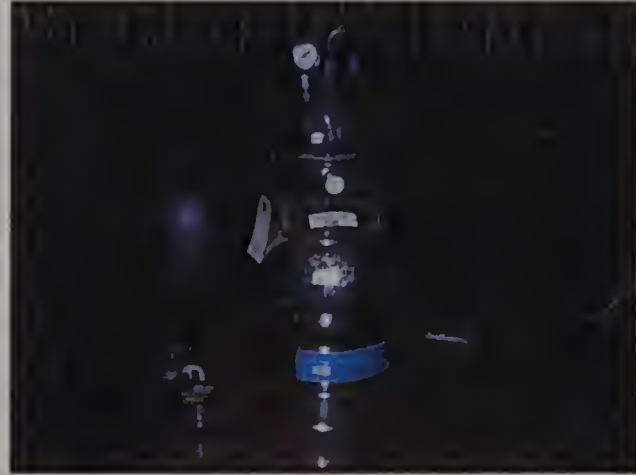
NM=Not Measured



**Air Sampling: 163 Glen Street (June 4, 2008)**



045162-163Glen-1A



045162-163Glen-1B



## Indoor Air Sampling Checklist

Sampling Location:  
**2 Hadley Court #2c**

Sample ID: **045162-2HADC-B**

Date:	<b>05-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>C. Malagrida</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M169</b>	Sampling Start Time:	<b>9:34 AM</b>
Flow Regulator ID:	<b>MC127</b>	Sampling Finish Time:	<b>1:35 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29.5</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>59.0</b>	<b>62.9</b>
Barometric Pressure (in. Hg):	<b>29.93</b>	<b>30.01</b>
Prevailing Wind Direction:	<b>E</b>	<b>S</b>
General Weather Conditions:	<b>Cloudy, Drizzle</b>	<b>Cloudy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>68.5</b>	<b>65.1</b>
Barometric Pressure (in. Hg):	<b>29.93</b>	<b>30.00</b>

Did Summa Canister go to ambient pressure? **No**  
PID readings at sample location (ppb): **1**  
Photographs taken before sampling by: **N. Slagowski**  
Was the building aired out prior to sample collection? **No**  
Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **Yes**  
If yes, provide detail:  
**Owner**


Did any of the occupants NOT follow instruction for residents? **Yes**    If yes, describe:  
**Can moved and put back with different orientation, photo taken.**

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 2"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

	<h2 style="text-align: center;">Indoor Air Sampling Checklist</h2>	<p>Sampling Location: <b>2 Hadley Court #2c</b></p>																													
		<p>Sample ID: <b>045162-2HADC-1</b></p>																													
<p>Date: <b>05-Jun-08</b></p> <p>Sampling Personnel: <b>C. Malagrida</b></p> <p>Summa Canister ID: <b>M117</b></p> <p>Flow Regulator ID: <b>MFC055</b></p>	<p>Sample Type: <b>Indoor</b></p> <p>Analysis Method: <b>TO-15</b></p> <p>Sampling Start Time: <b>9:40 AM</b></p> <p>Sampling Finish Time: <b>1:37 PM</b></p>																														
<p>Pressure gauge reading:</p> <p>Summa Canister Vacuum (in. Hg):</p> <p>Environmental Conditions (Outside):</p> <p>Temperature (°F):</p> <p>Barometric Pressure (in. Hg):</p> <p>Prevailing Wind Direction:</p> <p>General Weather Conditions:</p> <p>Environmental Conditions (Inside):</p> <p>Temperature (°F):</p> <p>Barometric Pressure (in. Hg):</p>	<table border="1"> <thead> <tr> <th></th> <th><u>Pre-opening</u></th> <th><u>Post-collection</u></th> </tr> </thead> <tbody> <tr> <td>Summa Canister Vacuum (in. Hg):</td> <td><b>30</b></td> <td><b>5</b></td> </tr> <tr> <td>Environmental Conditions (Outside):</td> <td><u>Before Sampling</u></td> <td><u>After Sampling</u></td> </tr> <tr> <td>Temperature (°F):</td> <td><b>59.0</b></td> <td><b>62.9</b></td> </tr> <tr> <td>Barometric Pressure (in. Hg):</td> <td><b>29.93</b></td> <td><b>30.01</b></td> </tr> <tr> <td>Prevailing Wind Direction:</td> <td><b>E</b></td> <td><b>S</b></td> </tr> <tr> <td>General Weather Conditions:</td> <td><b>Cloudy, Drizzle</b></td> <td><b>Cloudy</b></td> </tr> <tr> <td>Environmental Conditions (Inside):</td> <td><u>Before Sampling</u></td> <td><u>After Sampling</u></td> </tr> <tr> <td>Temperature (°F):</td> <td><b>69.9</b></td> <td><b>71.4</b></td> </tr> <tr> <td>Barometric Pressure (in. Hg):</td> <td><b>29.93</b></td> <td><b>29.99</b></td> </tr> </tbody> </table>		<u>Pre-opening</u>	<u>Post-collection</u>	Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>5</b>	Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>	Temperature (°F):	<b>59.0</b>	<b>62.9</b>	Barometric Pressure (in. Hg):	<b>29.93</b>	<b>30.01</b>	Prevailing Wind Direction:	<b>E</b>	<b>S</b>	General Weather Conditions:	<b>Cloudy, Drizzle</b>	<b>Cloudy</b>	Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>	Temperature (°F):	<b>69.9</b>	<b>71.4</b>	Barometric Pressure (in. Hg):	<b>29.93</b>	<b>29.99</b>
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<p>Did Summa Canister go to ambient pressure? <b>No</b></p> <p>PID readings at sample location (ppb): <b>0</b></p> <p>Photographs taken before sampling by: <b>N. Slagowski</b></p> <p>Was the building aired out prior to sample collection? <b>No</b></p> <p>Windows open? <b>No</b>      Ventilation fans? <b>No</b></p> <p>Was there significant precipitation within 12 hours of (or during) the sampling event? <b>Yes</b></p>																															
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<p>Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.</p>          <p>Air intake at <b>3' 11"</b> above the floor.</p> <p>* Estimated reading beyond gauge pressure markings.</p> <p style="text-align: right;">NM=Not Measured</p>																															

**Air Sampling: 2 Hadley Court, #2c (June 5, 2008)**



045162-2HADC-B




045162-2HADC-1



045162-2HADC-B rotated from original position.



	<h2 style="text-align: center;">Indoor Air Sampling Checklist</h2>	<p>Sampling Location: <b>153-155 Glen Street</b></p>																														
		<p>Sample ID: <b>045162-153Glen-1</b></p>																														
<p>Date: <b>06-Jun-08</b></p> <p>Sampling Personel: <b>S. Slater</b></p> <p>Summa Canister ID: <b>M032</b></p> <p>Flow Regulator ID: <b>MC131</b></p>	<p>Sample Type: <b>Indoor</b></p> <p>Analysis Method: <b>TO-15</b></p> <p>Sampling Start Time: <b>8:26 AM</b></p> <p>Sampling Finish Time: <b>12:35 PM</b></p>																															
<table border="0" style="width: 100%;"> <tr> <td style="width: 40%;">Pressure gauge reading:</td> <td style="width: 30%; text-align: center;"><u>Pre-opening</u></td> <td style="width: 30%; text-align: center;"><u>Post-collection</u></td> </tr> <tr> <td>Summa Canister Vacuum (in. Hg):</td> <td style="text-align: center;"><b>29</b></td> <td style="text-align: center;"><b>5</b></td> </tr> <tr> <td>Environmental Conditions (Outside):</td> <td style="text-align: center;"><u>Before Sampling</u></td> <td style="text-align: center;"><u>After Sampling</u></td> </tr> <tr> <td>Temperature (°F):</td> <td style="text-align: center;"><b>58.6</b></td> <td style="text-align: center;"><b>59.1</b></td> </tr> <tr> <td>Barometric Pressure (in. Hg):</td> <td style="text-align: center;"><b>30.14</b></td> <td style="text-align: center;"><b>30.13</b></td> </tr> <tr> <td>Prevailing Wind Direction:</td> <td style="text-align: center;"><b>Calm</b></td> <td style="text-align: center;"><b>Calm</b></td> </tr> <tr> <td>General Weather Conditions:</td> <td style="text-align: center;"><b>Rainy</b></td> <td style="text-align: center;"><b>Overcast, Humid</b></td> </tr> <tr> <td>Environmental Conditions (Inside):</td> <td style="text-align: center;"><u>Before Sampling</u></td> <td style="text-align: center;"><u>After Sampling</u></td> </tr> <tr> <td>Temperature (°F):</td> <td style="text-align: center;"><b>72.1</b></td> <td style="text-align: center;"><b>69.9</b></td> </tr> <tr> <td>Barometric Pressure (in. Hg):</td> <td style="text-align: center;"><b>30.15</b></td> <td style="text-align: center;"><b>30.13</b></td> </tr> </table>			Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>	Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5</b>	Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>	Temperature (°F):	<b>58.6</b>	<b>59.1</b>	Barometric Pressure (in. Hg):	<b>30.14</b>	<b>30.13</b>	Prevailing Wind Direction:	<b>Calm</b>	<b>Calm</b>	General Weather Conditions:	<b>Rainy</b>	<b>Overcast, Humid</b>	Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>	Temperature (°F):	<b>72.1</b>	<b>69.9</b>	Barometric Pressure (in. Hg):	<b>30.15</b>	<b>30.13</b>
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<p>Did Summa Canister go to ambient pressure? <b>No</b></p> <p>PID readings at sample location (ppb): <b>358</b></p> <p>Photographs taken before sampling by: <b>S. Slater</b></p> <p>Was the building aired out prior to sample collection? <b>No</b></p> <p>Windows open? <b>No</b>      Ventilation fans? <b>No</b></p> <p>Was there significant precipitation within 12 hours of (or during) the sampling event? <b>Yes</b></p>																																
<p>Were any of the residents at home during sampling? <b>Yes</b></p> <p>If yes, provide detail:</p> <p><b>Tenants</b></p>	<p>Did any of the occupants NOT follow instruction for residents? <b>No</b>      If yes, describe:</p>																															
<p>Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.</p> <p><b>PID readings were zero in all areas of the first floor except the room where the sample was located. There were many hair and skin care products in the room, and it smelled as though they had been used recently when GEI personnel arrived to pick up the sample.</b></p> <p>Air intake at      <b>4'</b> above the floor.</p> <p>* Estimated reading beyond gauge pressure markings.</p> <p style="text-align: right;">NM=Not Measured</p>																																



## Indoor Air Sampling Checklist

Sampling Location:  
**153-155 Glen Street**

Sample ID: **045162-153Glen-B**

Date:	<b>06-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M027</b>	Sampling Start Time:	<b>8:31 AM</b>
Flow Regulator ID:	<b>MC049</b>	Sampling Finish Time:	<b>12:38 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>5.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>58.6</b>	<b>59.1</b>
Barometric Pressure (in. Hg):	<b>30.14</b>	<b>30.13</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>Calm</b>
General Weather Conditions:	<b>Rainy</b>	<b>Overcast, Humid</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>65.8</b>	<b>66.3</b>
Barometric Pressure (in. Hg):	<b>30.15</b>	<b>30.13</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **Yes**  
If yes, provide detail:  
**Tenants**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 4"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 153-155 Glen Street (June 6, 2008)**



045162-153Glen-1



045162-153Glen-B





## Indoor Air Sampling Checklist

Sampling Location:  
**2 Hadley Court #2a**

Sample ID: **045162-2AHad-G**

Date:	<b>06-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M174</b>	Sampling Start Time:	<b>8:51 AM</b>
Flow Regulator ID:	<b>MC007</b>	Sampling Finish Time:	<b>1:00 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>5.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>58.6</b>	<b>59.1</b>
Barometric Pressure (in. Hg):	<b>30.14</b>	<b>30.13</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>Calm</b>
General Weather Conditions:	<b>Rainy</b>	<b>Overcast, Humid</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>64.2</b>	<b>64.5</b>
Barometric Pressure (in. Hg):	<b>30.15</b>	<b>30.12</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **Yes**

If yes, provide detail:

**Homeowners**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 2"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**2 Hadley Court #2a**

Sample ID: **045162-2AHad-1**

Date:	<b>06-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M011</b>	Sampling Start Time:	<b>8:53 AM</b>
Flow Regulator ID:	<b>MC129</b>	Sampling Finish Time:	<b>1:01 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29.5</b>	<b>4</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>58.6</b>	<b>59.1</b>
Barometric Pressure (in. Hg):	<b>30.14</b>	<b>30.13</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>Calm</b>
General Weather Conditions:	<b>Rainy</b>	<b>Overcast, Humid</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>68.7</b>	<b>68.5</b>
Barometric Pressure (in. Hg):	<b>30.14</b>	<b>30.12</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **Yes**

If yes, provide detail:

**Homeowners**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 10"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 2 Hadley Court, #2a (June 6, 2008)**



045162-2AHad-G



045162-2AHad-1



## Indoor Air Sampling Checklist

Sampling Location:  
**121 Washington Street**

Sample ID: **045162-121Wash-1A**

Date:	<b>09-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M003</b>	Sampling Start Time:	<b>9:23 AM</b>
Flow Regulator ID:	<b>MC136</b>	Sampling Finish Time:	<b>1:27 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>4</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>88.7</b>	<b>98.7</b>
Barometric Pressure (in. Hg):	<b>29.72</b>	<b>29.69</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>S</b>
General Weather Conditions:	<b>Sunny, Hazy</b>	<b>Sunny, Hazy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>71.6</b>	<b>75.7</b>
Barometric Pressure (in. Hg):	<b>29.71</b>	<b>29.69</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **Yes**

If yes, provide detail:

**Owner**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 10"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**121 Washington Street**

Sample ID: **045162-121Wash-1B**

Date:	<b>09-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M123</b>	Sampling Start Time:	<b>9:26 AM</b>
Flow Regulator ID:	<b>MC133</b>	Sampling Finish Time:	<b>1:28 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>28.5</b>	<b>3.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>88.7</b>	<b>98.7</b>
Barometric Pressure (in. Hg):	<b>29.72</b>	<b>29.69</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>S</b>
General Weather Conditions:	<b>Sunny, Hazy</b>	<b>Sunny, Hazy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>73.4</b>	<b>75.0</b>
Barometric Pressure (in. Hg):	<b>29.71</b>	<b>29.69</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **Yes**

If yes, provide detail:

**Owner**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 10"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



**Air Sampling: 121 Washington Street (June 9, 2008)**



045162-121Wash-1A



045162-121Wash-1B



## Indoor Air Sampling Checklist

Sampling Location:  
**142 Cross Street**

Sample ID: **045162-142Cross-1**

Date:	<b>10-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M048</b>	Sampling Start Time:	<b>1:08 PM</b>
Flow Regulator ID:	<b>MC128</b>	Sampling Finish Time:	<b>4:53 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>7</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>97.1</b>	<b>99.1</b>
Barometric Pressure (in. Hg):	<b>29.79</b>	<b>29.70</b>
Prevailing Wind Direction:	<b>W</b>	<b>W</b>
General Weather Conditions:	<b>Sunny, Hazy</b>	<b>Sunny, Hazy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>87.0</b>	<b>91.2</b>
Barometric Pressure (in. Hg):	<b>29.74</b>	<b>29.71</b>

Did Summa Canister go to ambient pressure? **No**  
PID readings at sample location (ppb): **0**  
Photographs taken before sampling by: **N. Slagowski**  
Was the building aired out prior to sample collection? **No**  
Windows open? **No**      Ventilation fans? **No**  
Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

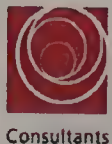
**Fire department at building when GEI came to take down samples (faulty alarm). They were leaving as GEI arrived. Sampling was completed early to accomdate owner's schedule.**

Air intake at **4' 10"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

GEI



## Indoor Air Sampling Checklist

Sampling Location:  
**142 Cross Street**

Sample ID: **045162-142-Cross-B**

Date: **10-Jun-08** Sample Type: **Indoor**  
 Sampling Personnel: **N. Slagowski** Analysis Method: **TO-15**  
 Summa Canister ID: **M101** Sampling Start Time: **1:14 PM**  
 Flow Regulator ID: **MC138** Sampling Finish Time: **4:55 PM**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>7</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>97.1</b>	<b>99.1</b>
Barometric Pressure (in. Hg):	<b>29.79</b>	<b>29.70</b>
Prevailing Wind Direction:	<b>W</b>	<b>W</b>
General Weather Conditions:	<b>Sunny, Hazy</b>	<b>Sunny, Hazy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>69.6</b>	<b>71.4</b>
Barometric Pressure (in. Hg):	<b>29.76</b>	<b>29.71</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **No**  
 If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No** If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

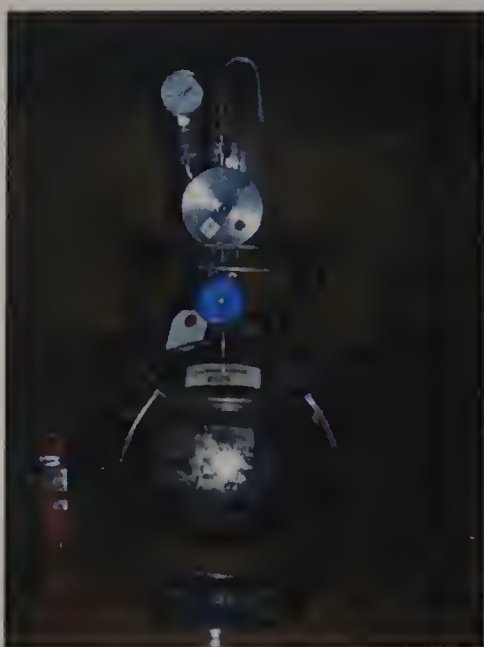
**Fire department at building when GEI came to take down samples (faulty alarm). They were leaving as GEI arrived. Sampling was completed early to accomdate owner's schedule.**

Air intake at **3' 10"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 142 Cross Street (June 10, 2008)**



045162-142Cross-1



045162-142Cross-B





## Indoor Air Sampling Checklist

Sampling Location:  
**152-154 Glen Street**

Sample ID: 045162-152-154Glen-1

Date:	<b>10-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M229</b>	Sampling Start Time:	<b>8:47 AM</b>
Flow Regulator ID:	<b>MC108</b>	Sampling Finish Time:	<b>12:59 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>5.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>84.2</b>	<b>97.1</b>
Barometric Pressure (in. Hg):	<b>29.80</b>	<b>29.79</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>W</b>
General Weather Conditions:	<b>Sunny, Hazy</b>	<b>Sunny, Hazy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>74.4</b>	<b>81.1</b>
Barometric Pressure (in. Hg):	<b>29.80</b>	<b>29.78</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **Yes**

Windows open? **Yes** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **Yes**  
If yes, provide detail:

**Occupant - man in morning, two women and baby in afternoon**

Did any of the occupants NOT follow instruction for residents? **Yes** If yes, describe:

**GEI staff noted many open windows upon arrival.**

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**Windows were open in many rooms of the apartment, but occupant shut them when GEI arrived. Windows were not open in room where sample was taken (living room in front of house), and this room was shut off with sheets hung over the doors.**

Air intake at **3' 7"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**152-154 Glen Street**

Sample ID: **045162-152-154Glen-B**

Date: **10-Jun-08** Sample Type: **Indoor**  
Sampling Personnel: **N. Slagowski** Analysis Method: **TO-15**  
Summa Canister ID: **M131** Sampling Start Time: **8:26 AM**  
Flow Regulator ID: **MC082** Sampling Finish Time: **12:37 PM**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>84.2</b>	<b>97.1</b>
Barometric Pressure (in. Hg):	<b>29.80</b>	<b>29.79</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>W</b>
General Weather Conditions:	<b>Sunny, Hazy</b>	<b>Sunny, Hazy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>72.8</b>	<b>71.9</b>
Barometric Pressure (in. Hg):	<b>29.80</b>	<b>29.79</b>

Did Summa Canister go to ambient pressure? **No**  
PID readings at sample location (ppb): **0**  
Photographs taken before sampling by: **N. Slagowski**  
Was the building aired out prior to sample collection? **No**  
Windows open? **No** Ventilation fans? **No**  
Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No** If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**Closed paint cans and paint thinner were observed approximately eight feet from sampling location.**

Air intake at **2' 9"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 152-154 Glen Street (June 10, 2008)**



045162-152-154Glen-1



045162-152-154Glen-B





## Indoor Air Sampling Checklist

Sampling Location:  
**80 Franklin Street**

Sample ID: **045162-80FRAN-1**

Date: **13-Jun-08** Sample Type: **Indoor**  
Sampling Personnel: **N. Slagowski** Analysis Method: **TO-15**  
Summa Canister ID: **M108** Sampling Start Time: **11:49 AM**  
Flow Regulator ID: **MC005** Sampling Finish Time: **4:02 PM**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>5.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>85.6</b>	<b>89.2</b>
Barometric Pressure (in. Hg):	<b>30.18</b>	<b>30.09</b>
Prevailing Wind Direction:	<b>W</b>	<b>W</b>
General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>80.0</b>	<b>82.7</b>
Barometric Pressure (in. Hg):	<b>30.17</b>	<b>30.08</b>

Did Summa Canister go to ambient pressure? **No**  
PID readings at sample location (ppb): **0**  
Photographs taken before sampling by: **N. Slagowski**  
Was the building aired out prior to sample collection? **No**  
Windows open? **Yes** Ventilation fans? **No**  
Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **Yes** If yes, describe:  
**Windows in the kitchen were open.**

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.


**Windows were open in the kitchen, so the sample was collected in a room where the windows had been closed all day (living room/bedroom nearest front door, on the opposite side of the house from the kitchen). The room where the sample was collected smelled like hair styling products. Pressure in regulator before opening: 1 in Hg.**

Air intake at **4' 10"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



	<b>Indoor Air Sampling Checklist</b>	Sampling Location: <b>80 Franklin Street</b>																														
		Sample ID: <b>045162-80FRAN-B</b>																														
<div>Date: <b>13-Jun-08</b>Sample Type: <b>Indoor</b></div> <div>Sampling Personel: <b>N. Slagowski</b>Analysis Method: <b>TO-15</b></div> <div>Summa Canister ID: <b>M006</b>Sampling Start Time: <b>11:52 AM</b></div> <div>Flow Regulator ID: <b>MC027</b>Sampling Finish Time: <b>4:04 PM</b></div>																																
<table><tr><td>Pressure gauge reading:</td><td><u>Pre-opening</u></td><td><u>Post-collection</u></td></tr><tr><td>Summa Canister Vacuum (in. Hg):</td><td><b>30</b></td><td><b>5</b></td></tr><tr><td>Environmental Conditions (Outside):</td><td><u>Before Sampling</u></td><td><u>After Sampling</u></td></tr><tr><td>Temperature (°F):</td><td><b>85.6</b></td><td><b>89.2</b></td></tr><tr><td>Barometric Pressure (in. Hg):</td><td><b>30.18</b></td><td><b>30.09</b></td></tr><tr><td>Prevailing Wind Direction:</td><td><b>W</b></td><td><b>W</b></td></tr><tr><td>General Weather Conditions:</td><td><b>Sunny</b></td><td><b>Sunny</b></td></tr><tr><td>Environmental Conditions (Inside):</td><td><u>Before Sampling</u></td><td><u>After Sampling</u></td></tr><tr><td>Temperature (°F):</td><td><b>74.4</b></td><td><b>74.4</b></td></tr><tr><td>Barometric Pressure (in. Hg):</td><td><b>30.17</b></td><td><b>30.07</b></td></tr></table>			Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>	Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>5</b>	Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>	Temperature (°F):	<b>85.6</b>	<b>89.2</b>	Barometric Pressure (in. Hg):	<b>30.18</b>	<b>30.09</b>	Prevailing Wind Direction:	<b>W</b>	<b>W</b>	General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>	Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>	Temperature (°F):	<b>74.4</b>	<b>74.4</b>	Barometric Pressure (in. Hg):	<b>30.17</b>	<b>30.07</b>
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Prevailing Wind Direction:	<b>W</b>	<b>W</b>																														
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Temperature (°F):	<b>74.4</b>	<b>74.4</b>																														
Barometric Pressure (in. Hg):	<b>30.17</b>	<b>30.07</b>																														
<div>Did Summa Canister go to ambient pressure? <b>No</b></div> <div>PID readings at sample location (ppb): <b>0</b></div> <div>Photographs taken before sampling by: <b>N. Slagowski</b></div> <div>Was the building aired out prior to sample collection? <b>No</b></div> <div>Windows open? <b>No</b>      Ventilation fans? <b>No</b></div> <div>Was there significant precipitation within 12 hours of (or during) the sampling event? <b>No</b></div>																																
<div>Were any of the residents at home during sampling? <b>No</b></div> <div>If yes, provide detail:</div>		<div>Did any of the occupants NOT follow instruction for residents? <b>No</b>      If yes, describe:</div>																														
<div>Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.</div> <div>Air intake at    <b>3' 7"</b> above the floor.</div> <div>* Estimated reading beyond gauge pressure markings.</div> <div>NM=Not Measured</div>																																

**Air Sampling: 80 Franklin Street (June 13, 2008)**



045162-80Fran-1



045162-80Fran-B



## Indoor Air Sampling Checklist

Sampling Location:  
**6-8 Morton Street**

Sample ID: **045162-6-8MORT-1**

Date:	<b>16-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M127</b>	Sampling Start Time:	<b>8:00 AM</b>
Flow Regulator ID:	<b>MC029</b>	Sampling Finish Time:	<b>12:17 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>62.7</b>	<b>64.2</b>
Barometric Pressure (in. Hg):	<b>29.75</b>	<b>29.74</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>W</b>
General Weather Conditions:	<b>Cloudy</b>	<b>Cloudy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>68.3</b>	<b>68.1</b>
Barometric Pressure (in. Hg):	<b>29.75</b>	<b>29.74</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **20**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 1"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**6-8 Morton Street**

Sample ID: **045162-6-8MORT-B**

Date:	<b>16-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M216</b>	Sampling Start Time:	<b>8:10 AM</b>
Flow Regulator ID:	<b>MC035</b>	Sampling Finish Time:	<b>12:25 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>62.7</b>	<b>64.2</b>
Barometric Pressure (in. Hg):	<b>29.75</b>	<b>29.74</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>W</b>
General Weather Conditions:	<b>Cloudy</b>	<b>Cloudy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>68.9</b>	<b>66.5</b>
Barometric Pressure (in. Hg):	<b>29.75</b>	<b>29.74</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 5"** above the floor.

\* Estimated reading beyond gauge pressure markings.

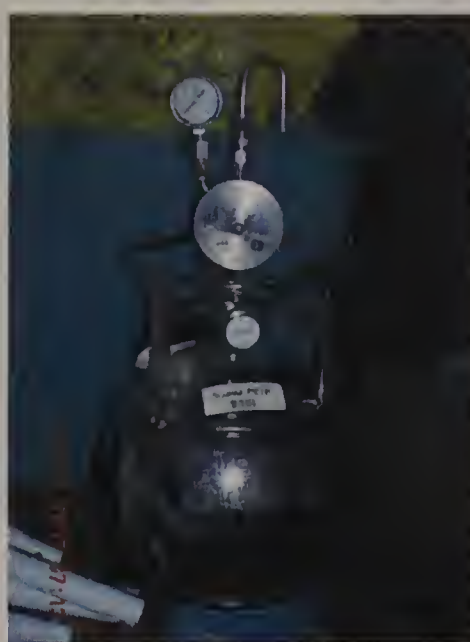
NM=Not Measured




**Air Sampling: 6-8 Morton Street (June 16, 2008)**



045162-6-8Mort-1



045162-6-8Mort-B

	<h2 style="text-align: center;">Indoor Air Sampling Checklist</h2>	Sampling Location: <b>53 Tufts Street</b>
		Sample ID: <b>045162-53Tufts-B</b>
Date: <b>17-Jun-08</b> Sampling Personel: <b>S. Chervinky</b> Summa Canister ID: <b>MO21</b> Flow Regulator ID: <b>MC049</b>	Sample Type: <b>Indoor</b> Analysis Method: <b>TO-15</b> Sampling Start Time: <b>9:00 AM</b> Sampling Finish Time: <b>1:01 PM</b>	
Pressure gauge reading: Summa Canister Vacuum (in. Hg): Environmental Conditions (Outside): Temperature (°F): Barometric Pressure (in. Hg): Prevailing Wind Direction: General Weather Conditions: Environmental Conditions (Inside): Temperature (°F): Barometric Pressure (in. Hg):	<u>Pre-opening</u> <b>30*</b> <u>Before Sampling</u> <b>65.8</b> <b>29.64</b> <b>W</b> <b>Partly cloudy</b> <u>Before Sampling</u> <b>69.6</b> <b>29.63</b>	<u>Post-collection</u> <b>6</b> <u>After Sampling</u> <b>76.8</b> <b>29.58</b> <b>W</b> <b>Partly cloudy</b> <u>After Sampling</u> <b>70.3</b> <b>29.58</b>
Did Summa Canister go to ambient pressure? <b>No</b> PID readings at sample location (ppb): <b>0</b> Photographs taken before sampling by: <b>S. Chervinky</b> Was the building aired out prior to sample collection? <b>No</b> Windows open? <b>No</b> Ventilation fans? <b>No</b> Was there significant precipitation within 12 hours of (or during) the sampling event? <b>Yes</b>		
Were any of the residents at home during sampling? <b>No</b> If yes, provide detail:	Did any of the occupants NOT follow instruction for residents? <b>No</b> If yes, describe:	
Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process. <b>A bottle of carpet cleaner was observed approximately 10 feet from the sample cannister. A PID reading of 35 ppb was recorded near the carpet cleaner.</b>  Air intake at <b>3' 11"</b> above the floor. * Estimated reading beyond gauge pressure markings.		

NM=Not Measured

**Air Sampling: 53 Tufts Street (June 17, 2008)**



045162-53Tufts-B



## Indoor Air Sampling Checklist

Sampling Location:  
**74 Franklin Street**

Sample ID: **045162-74Fran-1**

Date:	<b>19-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M221</b>	Sampling Start Time:	<b>8:14 AM</b>
Flow Regulator ID:	<b>MC115</b>	Sampling Finish Time:	<b>12:28 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>4.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>64.9</b>	<b>72.8</b>
Barometric Pressure (in. Hg):	<b>29.78</b>	<b>29.79</b>
Prevailing Wind Direction:	<b>E</b>	<b>S</b>
General Weather Conditions:	<b>Partly cloudy</b>	<b>Partly cloudy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>71.9</b>	<b>76.6</b>
Barometric Pressure (in. Hg):	<b>29.78</b>	<b>29.79</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **Yes**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **Yes**  
If yes, provide detail:  
**Family**

Did any of the occupants NOT follow instruction for residents? **Yes**    If yes, describe:  
**See comments**

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**The back door was open upon arrival (visible in the photo log). The language barrier proved a problem when GEI personnel asked them to close it. It is unknown whether the door was open during the full 4-hour sampling time, but the door was also noted to be open when GEI returned to take down the sample.**

Air intake at **3' 11"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**74 Franklin Street**

Sample ID: **045162-74Fran-B**

Date:	<b>19-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M102</b>	Sampling Start Time:	<b>8:20 AM</b>
Flow Regulator ID:	<b>MC073</b>	Sampling Finish Time:	<b>12:30 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>4</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>64.9</b>	<b>72.8</b>
Barometric Pressure (in. Hg):	<b>29.78</b>	<b>29.79</b>
Prevailing Wind Direction:	<b>E</b>	<b>S</b>
General Weather Conditions:	<b>Partly cloudy</b>	<b>Partly cloudy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>70.8</b>	<b>73.2</b>
Barometric Pressure (in. Hg):	<b>29.78</b>	<b>29.78</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**The basement was very humid and damp, with standing puddles of water throughout.**

Air intake at **4'** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 74 Franklin Street (June 19, 2008)**



045162-74Fran-1



045162-74Fran-B



## Indoor Air Sampling Checklist

Sampling Location:  
**23 Knowlton Street**

Sample ID: **045162-23Know-1**

Date:	<b>20-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M213</b>	Sampling Start Time:	<b>8:11 AM</b>
Flow Regulator ID:	<b>MC034</b>	Sampling Finish Time:	<b>12:12 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>69.2</b>	<b>75.3</b>
Barometric Pressure (in. Hg):	<b>29.90</b>	<b>29.88</b>
Prevailing Wind Direction:	<b>N</b>	<b>N</b>
General Weather Conditions:	<b>Partly cloudy</b>	<b>Partly cloudy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>75.3</b>	<b>74.3</b>
Barometric Pressure (in. Hg):	<b>29.90</b>	<b>29.88</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.


**The cover of a magazine on the sampling table appeared to be off-gassing. VOC concentrations with the PID held directly on the magazine registered as high as 311 ppb. With the probe tip approximately 2 inches from the magazine, the concentrations returned to 0 ppb.**

Air intake at **4' 10"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



	<h2 style="text-align: center;">Indoor Air Sampling Checklist</h2>		Sampling Location: <b>23 Knowlton Street</b>
			Sample ID: <b>045162-23Know-B</b>
Date: Sampling Personel: Summa Canister ID: Flow Regulator ID:	<b>20-Jun-08</b> <b>S. Slater</b> <b>M158</b> <b>MC002</b>	Sample Type: Analysis Method: Sampling Start Time: Sampling Finish Time:	<b>Indoor</b> <b>TO-15</b> <b>8:18 AM</b> <b>12:18 PM</b>
Pressure gauge reading: Summa Canister Vacuum (in. Hg): Environmental Conditions (Outside): Temperature (°F): Barometric Pressure (in. Hg): Prevailing Wind Direction: General Weather Conditions: Environmental Conditions (Inside): Temperature (°F): Barometric Pressure (in. Hg):	<u>Pre-opening</u> <b>30*</b> <u>Before Sampling</u> <b>69.2</b> <b>29.90</b> <b>N</b> <b>Partly cloudy</b> <u>Before Sampling</u> <b>70.3</b> <b>29.90</b>		<u>Post-collection</u> <b>6</b> <u>After Sampling</u> <b>75.3</b> <b>29.88</b> <b>N</b> <b>Partly cloudy</b> <u>After Sampling</u> <b>71.2</b> <b>29.89</b>
Did Summa Canister go to ambient pressure? <b>No</b> PID readings at sample location (ppb): <b>0</b> Photographs taken before sampling by: <b>S. Slater</b> Was the building aired out prior to sample collection? <b>No</b> Windows open? <b>No</b> Ventilation fans? <b>No</b> Was there significant precipitation within 12 hours of (or during) the sampling event? <b>No</b>			
Were any of the residents at home during sampling? <b>No</b> If yes, provide detail:		Did any of the occupants NOT follow instruction for residents? <b>No</b> If yes, describe:	
Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process. <b>GEI personnel moved a container of all-purpose fiberglass resin away from the area where sampling was taking place.</b>  Air intake at <b>3' 10"</b> above the floor. <div style="display: flex; justify-content: space-between;"> <span>* Estimated reading beyond gauge pressure markings.</span> <span>NM=Not Measured</span> </div>			



**Air Sampling: 23 Knowlton Street (June 20, 2008)**



045162-23Know-1



045162-23Know-B



## Indoor Air Sampling Checklist

Sampling Location:  
**82 Franklin Street**

Sample ID: **045162-82FRAN-1**

Date: **23-Jun-08** Sample Type: **Indoor**  
Sampling Personnel: **N. Slagowski** Analysis Method: **TO-15**  
Summa Canister ID: **M014** Sampling Start Time: **8:07 AM**  
Flow Regulator ID: **MFC017** Sampling Finish Time: **12:25 PM**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>5.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>75.5</b>	<b>76.4</b>
Barometric Pressure (in. Hg):	<b>29.92</b>	<b>29.90</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>SW</b>
General Weather Conditions:	<b>Cloudy</b>	<b>Cloudy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>76.2</b>	<b>71.0</b>
Barometric Pressure (in. Hg):	<b>29.92</b>	<b>29.90</b>

Did Summa Canister go to ambient pressure? **No**  
PID readings at sample location (ppb): **0**  
Photographs taken before sampling by: **N. Slagowski**  
Was the building aired out prior to sample collection? **No**  
Windows open? **No** Ventilation fans? **No**  
Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **Yes**  
If yes, provide detail:  
**Residents**

Did any of the occupants NOT follow instruction for residents? **No** If yes, describe:


Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**The reading on the regulator was 0.5 in. Hg before opening the canister.**

Air intake at **4' 3"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

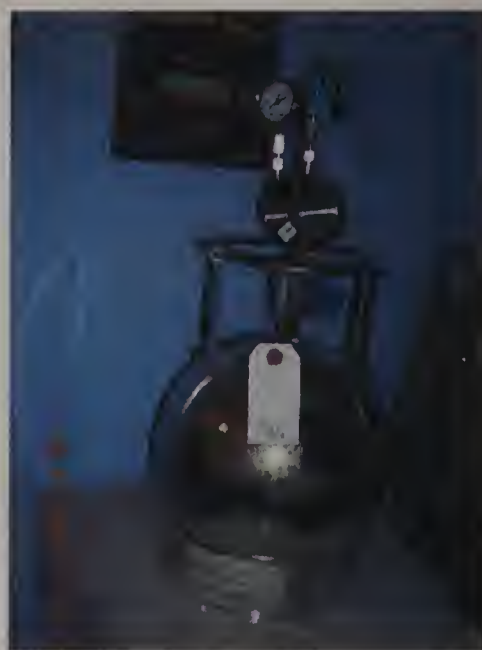
	<b>Indoor Air Sampling Checklist</b>	Sampling Location: <b>82 Franklin Street</b>																														
		Sample ID: <b>045162-82FRAN-B</b>																														
<table><tr><td>Date:</td><td><b>23-Jun-08</b></td><td>Sample Type:</td><td><b>Indoor</b></td></tr><tr><td>Sampling Personel:</td><td><b>N. Slagowski</b></td><td>Analysis Method:</td><td><b>TO-15</b></td></tr><tr><td>Summa Canister ID:</td><td><b>M073</b></td><td>Sampling Start Time:</td><td><b>8:13 AM</b></td></tr><tr><td>Flow Regulator ID:</td><td><b>MC124</b></td><td>Sampling Finish Time:</td><td><b>12:23 PM</b></td></tr></table>			Date:	<b>23-Jun-08</b>	Sample Type:	<b>Indoor</b>	Sampling Personel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>	Summa Canister ID:	<b>M073</b>	Sampling Start Time:	<b>8:13 AM</b>	Flow Regulator ID:	<b>MC124</b>	Sampling Finish Time:	<b>12:23 PM</b>														
Date:	<b>23-Jun-08</b>	Sample Type:	<b>Indoor</b>																													
Sampling Personel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>																													
Summa Canister ID:	<b>M073</b>	Sampling Start Time:	<b>8:13 AM</b>																													
Flow Regulator ID:	<b>MC124</b>	Sampling Finish Time:	<b>12:23 PM</b>																													
<table><tr><td>Pressure gauge reading:</td><td><u>Pre-opening</u></td><td><u>Post-collection</u></td></tr><tr><td>Summa Canister Vacuum (in. Hg):</td><td><b>29</b></td><td><b>3.5</b></td></tr><tr><td>Environmental Conditions (Outside):</td><td><u>Before Sampling</u></td><td><u>After Sampling</u></td></tr><tr><td>Temperature (°F):</td><td><b>75.5</b></td><td><b>76.4</b></td></tr><tr><td>Barometric Pressure (in. Hg):</td><td><b>29.92</b></td><td><b>29.90</b></td></tr><tr><td>Prevailing Wind Direction:</td><td><b>Calm</b></td><td><b>SW</b></td></tr><tr><td>General Weather Conditions:</td><td><b>Cloudy</b></td><td><b>Cloudy</b></td></tr><tr><td>Environmental Conditions (Inside):</td><td><u>Before Sampling</u></td><td><u>After Sampling</u></td></tr><tr><td>Temperature (°F):</td><td><b>75.7</b></td><td><b>72.3</b></td></tr><tr><td>Barometric Pressure (in. Hg):</td><td><b>29.92</b></td><td><b>29.91</b></td></tr></table>			Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>	Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>3.5</b>	Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>	Temperature (°F):	<b>75.5</b>	<b>76.4</b>	Barometric Pressure (in. Hg):	<b>29.92</b>	<b>29.90</b>	Prevailing Wind Direction:	<b>Calm</b>	<b>SW</b>	General Weather Conditions:	<b>Cloudy</b>	<b>Cloudy</b>	Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>	Temperature (°F):	<b>75.7</b>	<b>72.3</b>	Barometric Pressure (in. Hg):	<b>29.92</b>	<b>29.91</b>
Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>																														
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Temperature (°F):	<b>75.7</b>	<b>72.3</b>																														
Barometric Pressure (in. Hg):	<b>29.92</b>	<b>29.91</b>																														
Did Summa Canister go to ambient pressure? <b>No</b> PID readings at sample location (ppb): <b>24</b> Photographs taken before sampling by: <b>N. Slagowski</b> Was the building aired out prior to sample collection? <b>No</b> Windows open? <b>No</b> Ventilation fans? <b>No</b> Was there significant precipitation within 12 hours of (or during) the sampling event? <b>Yes</b>																																
Were any of the residents at home during sampling? <b>Yes</b> If yes, provide detail: <b>Residents on first floor</b>		Did any of the occupants NOT follow instruction for residents? <b>No</b> If yes, describe:																														
Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process. <b>Readings on the ppbRAE were approximately 30 ppb near the clothes dryer in the basement, which was about 20 feet from the sampling location.</b>  Air intake at <b>4' 3"</b> above the floor.  * Estimated reading beyond gauge pressure markings.																																

NM=Not Measured

**Air Sampling: 82 Franklin Street (June 23, 2008)**



045162-82FRAN-1



045162-82FRAN-B





## Indoor Air Sampling Checklist

Sampling Location:  
**76 Franklin Street**

Sample ID: **045162-76Fran-1**

Date:	<b>24-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M140</b>	Sampling Start Time:	<b>8:18 AM</b>
Flow Regulator ID:	<b>MC104</b>	Sampling Finish Time:	<b>12:20 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29.5</b>	<b>4.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>71.2</b>	<b>79.3</b>
Barometric Pressure (in. Hg):	<b>29.86</b>	<b>29.84</b>
Prevailing Wind Direction:	<b>N</b>	<b>W</b>
General Weather Conditions:	<b>Partly sunny</b>	<b>Partly sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>75.3</b>	<b>78.0</b>
Barometric Pressure (in. Hg):	<b>29.85</b>	<b>29.84</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **Yes**  
If yes, provide detail:  
**Homeowner**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 9"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**76 Franklin Street**

Sample ID: **045162-76Fran-B**

Date: **24-Jun-08** Sample Type: **Indoor**  
Sampling Personnel: **S. Slater** Analysis Method: **TO-15**  
Summa Canister ID: **M087** Sampling Start Time: **8:24 AM**  
Flow Regulator ID: **MC131** Sampling Finish Time: **12:23 PM**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>71.2</b>	<b>79.3</b>
Barometric Pressure (in. Hg):	<b>29.86</b>	<b>29.84</b>
Prevailing Wind Direction:	<b>N</b>	<b>W</b>
General Weather Conditions:	<b>Partly sunny</b>	<b>Partly sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>70.1</b>	<b>70.7</b>
Barometric Pressure (in. Hg):	<b>29.86</b>	<b>29.85</b>

Did Summa Canister go to ambient pressure? **No**  
PID readings at sample location (ppb): **0**  
Photographs taken before sampling by: **S. Slater**  
Was the building aired out prior to sample collection? **No**  
Windows open? **No** Ventilation fans? **No**  
Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **Yes**  
If yes, provide detail:  
**Homeowner on the first floor.**

Did any of the occupants NOT follow instruction for residents? **No** If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 8"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 76 Franklin Street (June 24, 2008)**



045162-76Fran-1



045162-76Fran-B





## Indoor Air Sampling Checklist

Sampling Location:  
**97R Franklin Street**

Sample ID: 045162-97RFran-1

Date:	<b>24-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M004</b>	Sampling Start Time:	<b>8:54 AM</b>
Flow Regulator ID:	<b>MC019</b>	Sampling Finish Time:	<b>12:56 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>6.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>74.6</b>	<b>79.7</b>
Barometric Pressure (in. Hg):	<b>29.85</b>	<b>29.82</b>
Prevailing Wind Direction:	<b>N</b>	<b>W</b>
General Weather Conditions:	<b>Partly sunny</b>	<b>Partly sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>76.8</b>	<b>79.5</b>
Barometric Pressure (in. Hg):	<b>29.85</b>	<b>29.83</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **6**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **Yes**

If yes, provide detail:

**Homeowners**

Did any of the occupants NOT follow instruction for residents? **No** If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4'** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



GEI



## Indoor Air Sampling Checklist

Sampling Location:  
**97R Franklin Street**

Sample ID: **045162-97RFran-B**

Date:	<b>24-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M105</b>	Sampling Start Time:	<b>9:01 AM</b>
Flow Regulator ID:	<b>MC096</b>	Sampling Finish Time:	<b>3:37 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>74.6</b>	<b>69.0</b>
Barometric Pressure (in. Hg):	<b>29.85</b>	<b>29.86</b>
Prevailing Wind Direction:	<b>N</b>	<b>W</b>
General Weather Conditions:	<b>Partly sunny</b>	<b>Overcast</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>72.3</b>	<b>73.2</b>
Barometric Pressure (in. Hg):	<b>29.86</b>	<b>29.86</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **3**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **Yes**

If yes, provide detail:

**Homeowners were upstairs on 1st floor.**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**Additional PID readings prior to sampling: Rear = 0-30 ppb; front = 0-15 ppb; paint thinner container at top of stairs = 4700 ppb; varnish & various cleaners at top of stairs = 500-700 ppb.**

**The air intake filter fell off the regulator when attaching the regulator to the summa can. This sample ran 2.5 hours slow, taking a total of 6.5 hours to reach the appropriate vacuum (5 in. Hg).**

Air intake at **4' 5"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 97R Franklin Street (June 24, 2008)**



045162-97RFran-1



045162-97RFran-B



## Indoor Air Sampling Checklist

Sampling Location:  
**27 Knowlton Street**

Sample ID: **045162-27Know-B**

Date:	<b>25-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>S. Chervinky</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M227</b>	Sampling Start Time:	<b>4:25 PM</b>
Flow Regulator ID:	<b>MC142</b>	Sampling Finish Time:	<b>8:22 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>6</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>88.7</b>	<b>79.1</b>
Barometric Pressure (in. Hg):	<b>29.96</b>	<b>29.93</b>
Prevailing Wind Direction:	<b>S</b>	<b>Calm</b>
General Weather Conditions:	<b>Partly cloudy</b>	<b>Clear</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>72.3</b>	<b>73.7</b>
Barometric Pressure (in. Hg):	<b>29.96</b>	<b>29.93</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Chervinky**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **Yes**

If yes, provide detail:

**Resident was present on first floor**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**Cans of varnish and paint were observed in the basement where the sample was collected.**

Air intake at **4 '9"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 27 Knowlton Street (June 25, 2008)**



045162-27Know-B





## Indoor Air Sampling Checklist

Sampling Location:  
**97 Washington Street**

Sample ID: **045162-97WASH-1**

Date:	<b>25-Jun-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M047</b>	Sampling Start Time:	<b>9:02 AM</b>
Flow Regulator ID:	<b>MC088</b>	Sampling Finish Time:	<b>1:13 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29.5</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>70.7</b>	<b>87.2</b>
Barometric Pressure (in. Hg):	<b>30.07</b>	<b>30.03</b>
Prevailing Wind Direction:	<b>E</b>	<b>SE</b>
General Weather Conditions:	<b>Partly cloudy</b>	<b>Sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>77.9</b>	<b>83.3</b>
Barometric Pressure (in. Hg):	<b>30.06</b>	<b>30.02</b>

Did Summa Canister go to ambient pressure? **Yes**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **Yes**

If yes, provide detail:

**Bartender and customers**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

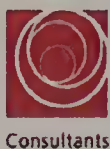
**The door to the bar room was open, so the sample was taken in the back room, which was closed off from the bar. This room has an open entrance to the basement.**

Air intake at **4' 10"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

GEI



## Indoor Air Sampling Checklist

Sampling Location:  
**97 Washington Street**

Sample ID: **045162-97WASH-B**

Date: **25-Jun-08**

Sample Type: **Indoor**

Sampling Personel: **N. Slagowski**

Analysis Method: **TO-15**

Summa Canister ID: **M012**

Sampling Start Time: **9:08 AM**

Flow Regulator ID: **MC075**

Sampling Finish Time: **1:13 PM**

Pressure gauge reading:

Pre-opening

Post-collection

Summa Canister Vacuum (in. Hg):

**30**

**4.5**

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature (°F):

**70.7**

**87.2**

Barometric Pressure (in. Hg):

**30.07**

**30.03**

Prevailing Wind Direction:

**E**

**SE**

General Weather Conditions:

**Partly cloudy**

**Sunny**

Environmental Conditions (Inside):

Before Sampling

After Sampling

Temperature (°F):

**84.7**

**83.1**

Barometric Pressure (in. Hg):

**30.07**

**30.02**

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **No**

Windows open? **No**

Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No** If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 0"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 97 Washington Street (June 25, 2008)**




045162-97WASH-1



045162-97WASH-B



	<h2 style="text-align: center;">Indoor Air Sampling Checklist</h2>		Sampling Location: <b>31-33 Knowlton Street</b>																														
			Sample ID: <b>045162-31Know-1</b>																														
<table border="0" style="width: 100%;"> <tr> <td>Date:</td> <td><b>14-Jul-08</b></td> <td>Sample Type:</td> <td><b>Indoor</b></td> </tr> <tr> <td>Sampling Personnel:</td> <td><b>S. Chervinky</b></td> <td>Analysis Method:</td> <td><b>TO-15</b></td> </tr> <tr> <td>Summa Canister ID:</td> <td><b>M239</b></td> <td>Sampling Start Time:</td> <td><b>8:31 AM</b></td> </tr> <tr> <td>Flow Regulator ID:</td> <td><b>MC129</b></td> <td>Sampling Finish Time:</td> <td><b>12:44 PM</b></td> </tr> </table>				Date:	<b>14-Jul-08</b>	Sample Type:	<b>Indoor</b>	Sampling Personnel:	<b>S. Chervinky</b>	Analysis Method:	<b>TO-15</b>	Summa Canister ID:	<b>M239</b>	Sampling Start Time:	<b>8:31 AM</b>	Flow Regulator ID:	<b>MC129</b>	Sampling Finish Time:	<b>12:44 PM</b>														
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<p>Did Summa Canister go to ambient pressure? <b>No</b></p> <p>PID readings at sample location (ppb): <b>0</b></p> <p>Photographs taken before sampling by: <b>S. Chervinky</b></p> <p>Was the building aired out prior to sample collection? <b>No</b></p> <p>Windows open? <b>No</b>      Ventilation fans? <b>No</b></p> <p>Was there significant precipitation within 12 hours of (or during) the sampling event? <b>No</b></p>																																	
Were any of the residents at home during sampling? <b>No</b> If yes, provide detail:		Did any of the occupants NOT follow instruction for residents? <b>No</b> If yes, describe:																															
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Air intake at <b>4' 0"</b> above the floor. <div style="display: flex; justify-content: space-between;"> <span>* Estimated reading beyond gauge pressure markings.</span> <span>NM=Not Measured</span> </div>																																	





## Indoor Air Sampling Checklist

Sampling Location:  
**31-33 Knowlton Street**

Sample ID: **045162-31Know-B**

Date:	<b>14-Jul-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>S. Chervinky</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M146</b>	Sampling Start Time:	<b>8:26 AM</b>
Flow Regulator ID:	<b>MC121</b>	Sampling Finish Time:	<b>12:41 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>28</b>	<b>4</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>78.8</b>	<b>82.5</b>
Barometric Pressure (in. Hg):	<b>29.70</b>	<b>29.73</b>
Prevailing Wind Direction:	<b>S</b>	<b>S</b>
General Weather Conditions:	<b>Cloudy</b>	<b>Cloudy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>75.7</b>	<b>76.8</b>
Barometric Pressure (in. Hg):	<b>29.70</b>	<b>29.70</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb):

Photographs taken before sampling by: **S. Chervinky**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No** If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**There were some paint and solvent cans in the basement.**

Air intake at **3' 11"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 31-33 Knowlton Street (July 14, 2008)**



045162-31KNOW-1



045162-31KNOW-B



## Indoor Air Sampling Checklist

Sampling Location:  
**97 Franklin Street**

Sample ID: **045162-97FRAN-1**

Date:	<b>24-Jul-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>S. Chervinky</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M243</b>	Sampling Start Time:	<b>4:05 PM</b>
Flow Regulator ID:	<b>MC115</b>	Sampling Finish Time:	<b>8:05 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>7</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>73</b>	<b>69.2</b>
Barometric Pressure (in. Hg):	<b>29.94</b>	<b>29.95</b>
Prevailing Wind Direction:	<b>S</b>	<b>S</b>
General Weather Conditions:	<b>Rainy, Cloudy</b>	<b>Rainy, Cloudy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>78</b>	<b>78.2</b>
Barometric Pressure (in. Hg):	<b>29.94</b>	<b>29.95</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Chervinky**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:  
**Resident family was present on the first floor.**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4'** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**97 Franklin Street**

Sample ID: **045162-97FRAN-B**

Date:	<b>24-Jul-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Chervinky</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M245</b>	Sampling Start Time:	<b>4:00 PM</b>
Flow Regulator ID:	<b>MC131</b>	Sampling Finish Time:	<b>8:00 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>6</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>73</b>	<b>69.2</b>
Barometric Pressure (in. Hg):	<b>29.94</b>	<b>29.95</b>
Prevailing Wind Direction:	<b>S</b>	<b>S</b>
General Weather Conditions:	<b>Rainy, Cloudy</b>	<b>Rainy, Cloudy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>75.5</b>	<b>75.2</b>
Barometric Pressure (in. Hg):	<b>29.93</b>	<b>29.95</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Chervinky**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **Yes**

If yes, provide detail:

**Resident family was present on the first floor.**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 2"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 97 Franklin Street (July 24, 2008)**



045162-97FRAN-1



045162-97FRAN-B



## Indoor Air Sampling Checklist

Sampling Location:  
**45-47 Tufts Street**

Sample ID: **045162-45-47Tuft-1**

Date: **25-Jul-08** Sample Type: **Indoor**  
Sampling Personel: **N. Slagowski** Analysis Method: **TO-15**  
Summa Canister ID: **M026** Sampling Start Time: **9:36 AM**  
Flow Regulator ID: **MC082** Sampling Finish Time: **1:55 PM**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>4.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>76.8</b>	<b>82.7</b>
Barometric Pressure (in. Hg):	<b>30.01</b>	<b>29.99</b>
Prevailing Wind Direction:	<b>NE</b>	<b>NE</b>
General Weather Conditions:	<b>Sunny, Partly cloudy</b>	<b>Partly cloudy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>74.8</b>	<b>77.0</b>
Barometric Pressure (in. Hg):	<b>30.01</b>	<b>29.99</b>

Did Summa Canister go to ambient pressure? **No**  
PID readings at sample location (ppb): **0**  
Photographs taken before sampling by: **N. Slagowski**  
Was the building aired out prior to sample collection? **No**  
Windows open? **No** Ventilation fans? **No**  
Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No** If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**There was construction activity in Unit 3 (above unit being sampled) in the afternoon.**

Air intake at **4' 3"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**45-47 Tufts Street**

Sample ID: **045162-45-47Tuft-B**

Date:	<b>25-Jul-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M096</b>	Sampling Start Time:	<b>9:35 AM</b>
Flow Regulator ID:	<b>MC007</b>	Sampling Finish Time:	<b>1:54 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>76.8</b>	<b>82.7</b>
Barometric Pressure (in. Hg):	<b>30.01</b>	<b>29.99</b>
Prevailing Wind Direction:	<b>NE</b>	<b>NE</b>
General Weather Conditions:	<b>Sunny, Partly cloudy</b>	<b>Partly cloudy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>71.9</b>	<b>71.4</b>
Barometric Pressure (in. Hg):	<b>30.02</b>	<b>29.99</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

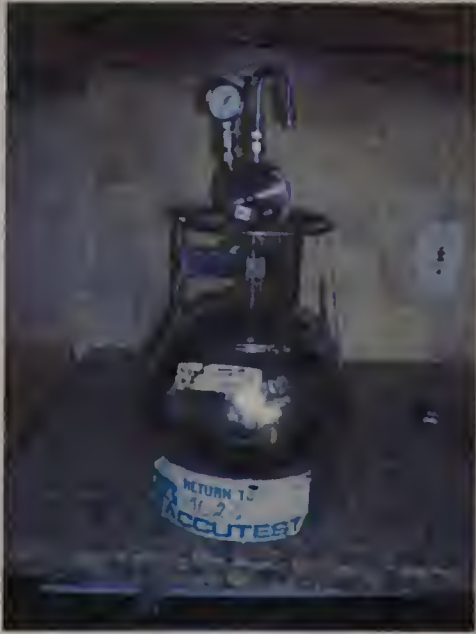
Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 5"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured


**Air Sampling: 45-47 Tufts Street (July 25, 2008)**



045162-45-47Tuft-1



045162-45-47Tuft-B

	<h2 style="text-align: center;">Indoor Air Sampling Checklist</h2>	<p>Sampling Location: <b>51-51a Tufts Street</b></p>																													
		<p>Sample ID: <b>045162-51Tuft-1</b></p>																													
<p>Date: <b>25-Jul-08</b></p> <p>Sampling Personnel: <b>N. Slagowski</b></p> <p>Summa Canister ID: <b>M098</b></p> <p>Flow Regulator ID: <b>MFC008</b></p>	<p>Sample Type: <b>Indoor</b></p> <p>Analysis Method: <b>TO-15</b></p> <p>Sampling Start Time: <b>8:45 AM</b></p> <p>Sampling Finish Time: <b>1:10 PM</b></p>																														
<p>Pressure gauge reading:</p> <p>Summa Canister Vacuum (in. Hg):</p> <p>Environmental Conditions (Outside):</p> <p>Temperature (°F):</p> <p>Barometric Pressure (in. Hg):</p> <p>Prevailing Wind Direction:</p> <p>General Weather Conditions:</p> <p>Environmental Conditions (Inside):</p> <p>Temperature (°F):</p> <p>Barometric Pressure (in. Hg):</p>	<table border="1"> <thead> <tr> <th></th> <th><u>Pre-opening</u></th> <th><u>Post-collection</u></th> </tr> </thead> <tbody> <tr> <td>Summa Canister Vacuum (in. Hg):</td> <td><b>30*</b></td> <td><b>4</b></td> </tr> <tr> <td>Environmental Conditions (Outside):</td> <td><u>Before Sampling</u></td> <td><u>After Sampling</u></td> </tr> <tr> <td>Temperature (°F):</td> <td><b>71.9</b></td> <td><b>83.4</b></td> </tr> <tr> <td>Barometric Pressure (in. Hg):</td> <td><b>30.03</b></td> <td><b>30.00</b></td> </tr> <tr> <td>Prevailing Wind Direction:</td> <td><b>NE</b></td> <td><b>NE</b></td> </tr> <tr> <td>General Weather Conditions:</td> <td><b>Sunny, Partly cloudy</b></td> <td><b>Partly cloudy</b></td> </tr> <tr> <td>Environmental Conditions (Inside):</td> <td><u>Before Sampling</u></td> <td><u>After Sampling</u></td> </tr> <tr> <td>Temperature (°F):</td> <td><b>78.8</b></td> <td><b>78.8</b></td> </tr> <tr> <td>Barometric Pressure (in. Hg):</td> <td><b>30.02</b></td> <td><b>30.00</b></td> </tr> </tbody> </table>		<u>Pre-opening</u>	<u>Post-collection</u>	Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>4</b>	Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>	Temperature (°F):	<b>71.9</b>	<b>83.4</b>	Barometric Pressure (in. Hg):	<b>30.03</b>	<b>30.00</b>	Prevailing Wind Direction:	<b>NE</b>	<b>NE</b>	General Weather Conditions:	<b>Sunny, Partly cloudy</b>	<b>Partly cloudy</b>	Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>	Temperature (°F):	<b>78.8</b>	<b>78.8</b>	Barometric Pressure (in. Hg):	<b>30.02</b>	<b>30.00</b>
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<p>Did Summa Canister go to ambient pressure? <b>No</b></p> <p>PID readings at sample location (ppb): <b>0</b></p> <p>Photographs taken before sampling by: <b>N. Slagowski</b></p> <p>Was the building aired out prior to sample collection? <b>Yes</b></p> <p>Windows open? <b>Yes</b>      Ventilation fans? <b>No</b></p> <p>Was there significant precipitation within 12 hours of (or during) the sampling event? <b>Yes</b></p>																															
<p>Were any of the residents at home during sampling? <b>No</b></p> <p>If yes, provide detail:</p>	<p>Did any of the occupants NOT follow instruction for residents? <b>Yes</b>    If yes, describe:</p> <p><b>The kitchen window was open.</b></p>																														
<p>Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.</p> <p><b>Since a window was open in the kitchen, the indoor air sample was collected at the opposite end of the house, where no windows were open.</b></p> <p>Air intake at <b>3' 3"</b> above the floor.</p> <p>* Estimated reading beyond gauge pressure markings.</p> <p style="text-align: right;">NM=Not Measured</p>																															





## Indoor Air Sampling Checklist

Sampling Location:  
**51-51a Tufts Street**

Sample ID: **045162-51Tuft-B**

Date:	<b>25-Jul-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M115</b>	Sampling Start Time:	<b>8:42 AM</b>
Flow Regulator ID:	<b>MFC015</b>	Sampling Finish Time:	<b>12:53 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>71.9</b>	<b>83.4</b>
Barometric Pressure (in. Hg):	<b>30.03</b>	<b>30.00</b>
Prevailing Wind Direction:	<b>NE</b>	<b>NE</b>
General Weather Conditions:	<b>Sunny, Partly cloudy</b>	<b>Partly cloudy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>77.5</b>	<b>77.7</b>
Barometric Pressure (in. Hg):	<b>30.03</b>	<b>30.00</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 0"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 51-51A Tufts Street (July 25, 2008)**



045162-51-51ATuft-1



045162-51-51ATuft-B



## Indoor Air Sampling Checklist

Sampling Location:  
**12-14 Knowlton Street**

Sample ID: **045162-14Know-1**

Date:	<b>04-Aug-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Chervinky</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M134</b>	Sampling Start Time:	<b>9:13 AM</b>
Flow Regulator ID:	<b>MC132</b>	Sampling Finish Time:	<b>1:06 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>28</b>	<b>4</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>75.2</b>	<b>82.2</b>
Barometric Pressure (in. Hg):	<b>29.77</b>	<b>29.77</b>
Prevailing Wind Direction:	<b>SW</b>	<b>SW</b>
General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>81.3</b>	<b>84.2</b>
Barometric Pressure (in. Hg):	<b>29.77</b>	<b>29.77</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Chervinky**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **Yes**

If yes, provide detail:

**The residents were present on the first floor.**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.


**An air conditioner was operating during sampling.**

Air intake at **3' 1"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



	<h2 style="text-align: center;">Indoor Air Sampling Checklist</h2>	<p>Sampling Location: <b>12-14 Knowlton Street</b></p>																													
		<p>Sample ID: <b>045162-14Know-B</b></p>																													
<p>Date: <b>04-Aug-08</b></p> <p>Sampling Personel: <b>S. Chervinky</b></p> <p>Summa Canister ID: <b>M241</b></p> <p>Flow Regulator ID: <b>MC127</b></p>	<p>Sample Type: <b>Indoor</b></p> <p>Analysis Method: <b>TO-15</b></p> <p>Sampling Start Time: <b>9:17 AM</b></p> <p>Sampling Finish Time: <b>1:09 PM</b></p>																														
<p>Pressure gauge reading:</p> <p>Summa Canister Vacuum (in. Hg):</p> <p>Environmental Conditions (Outside):</p> <p>Temperature (°F):</p> <p>Barometric Pressure (in. Hg):</p> <p>Prevailing Wind Direction:</p> <p>General Weather Conditions:</p> <p>Environmental Conditions (Inside):</p> <p>Temperature (°F):</p> <p>Barometric Pressure (in. Hg):</p>	<table border="1"> <thead> <tr> <th></th> <th><u>Pre-opening</u></th> <th><u>Post-collection</u></th> </tr> </thead> <tbody> <tr> <td>Summa Canister Vacuum (in. Hg):</td> <td><b>28</b></td> <td><b>5</b></td> </tr> <tr> <td>Environmental Conditions (Outside):</td> <td><u>Before Sampling</u></td> <td><u>After Sampling</u></td> </tr> <tr> <td>Temperature (°F):</td> <td><b>75.2</b></td> <td><b>82.2</b></td> </tr> <tr> <td>Barometric Pressure (in. Hg):</td> <td><b>29.77</b></td> <td><b>29.77</b></td> </tr> <tr> <td>Prevailing Wind Direction:</td> <td><b>SW</b></td> <td><b>SW</b></td> </tr> <tr> <td>General Weather Conditions:</td> <td><b>Sunny</b></td> <td><b>Sunny</b></td> </tr> <tr> <td>Environmental Conditions (Inside):</td> <td><u>Before Sampling</u></td> <td><u>After Sampling</u></td> </tr> <tr> <td>Temperature (°F):</td> <td><b>77.1</b></td> <td><b>77</b></td> </tr> <tr> <td>Barometric Pressure (in. Hg):</td> <td><b>29.77</b></td> <td><b>29.77</b></td> </tr> </tbody> </table>		<u>Pre-opening</u>	<u>Post-collection</u>	Summa Canister Vacuum (in. Hg):	<b>28</b>	<b>5</b>	Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>	Temperature (°F):	<b>75.2</b>	<b>82.2</b>	Barometric Pressure (in. Hg):	<b>29.77</b>	<b>29.77</b>	Prevailing Wind Direction:	<b>SW</b>	<b>SW</b>	General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>	Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>	Temperature (°F):	<b>77.1</b>	<b>77</b>	Barometric Pressure (in. Hg):	<b>29.77</b>	<b>29.77</b>
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<p>Did Summa Canister go to ambient pressure? <b>No</b></p> <p>PID readings at sample location (ppb): <b>0</b></p> <p>Photographs taken before sampling by: <b>S. Chervinky</b></p> <p>Was the building aired out prior to sample collection? <b>No</b></p> <p>Windows open? <b>No</b>      Ventilation fans? <b>No</b></p> <p>Was there significant precipitation within 12 hours of (or during) the sampling event? <b>No</b></p>																															
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<p>Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.</p>          <p>Air intake at      <b>4'</b> above the floor.</p> <p>* Estimated reading beyond gauge pressure markings.</p> <p style="text-align: right;">NM=Not Measured</p>																															


**Air Sampling: 12-14 Knowlton Street (August 4, 2008)**



045162-14Know-1



045162-14Know-B

	<h2 style="text-align: center;">Indoor Air Sampling Checklist</h2>	<p style="text-align: center;">Sampling Location: <b>19-19A Morton Street</b></p>																			
		<p>Sample ID: <b>045162-19MORT-1</b></p>																			
<p>Date: <b>18-Aug-08</b></p> <p>Sampling Personel: <b>N. Slagowski</b></p> <p>Summa Canister ID: <b>M023</b></p> <p>Flow Regulator ID: <b>MC104</b></p>	<p>Sample Type: <b>Indoor</b></p> <p>Analysis Method: <b>TO-15</b></p> <p>Sampling Start Time: <b>1:59 PM</b></p> <p>Sampling Finish Time: <b>6:04 PM</b></p>																				
<p>Pressure gauge reading:</p> <p style="padding-left: 40px;">Summa Canister Vacuum (in. Hg):</p> <p>Environmental Conditions (Outside):</p> <p style="padding-left: 40px;">Temperature (°F):</p> <p style="padding-left: 40px;">Barometric Pressure (in. Hg):</p> <p style="padding-left: 40px;">Prevailing Wind Direction:</p> <p style="padding-left: 40px;">General Weather Conditions:</p> <p>Environmental Conditions (Inside):</p> <p style="padding-left: 40px;">Temperature (°F):</p> <p style="padding-left: 40px;">Barometric Pressure (in. Hg):</p>	<table border="0" style="width: 100%;"> <tr> <td style="text-align: center;"><u>Pre-opening</u></td> <td style="text-align: center;"><u>Post-collection</u></td> </tr> <tr> <td style="text-align: center;"><b>30</b></td> <td style="text-align: center;"><b>5</b></td> </tr> <tr> <td style="text-align: center;"><u>Before Sampling</u></td> <td style="text-align: center;"><u>After Sampling</u></td> </tr> <tr> <td style="text-align: center;"><b>88.7</b></td> <td style="text-align: center;"><b>86.4</b></td> </tr> <tr> <td style="text-align: center;"><b>29.82</b></td> <td style="text-align: center;"><b>29.77</b></td> </tr> <tr> <td style="text-align: center;"><b>SE</b></td> <td style="text-align: center;"><b>SE</b></td> </tr> <tr> <td style="text-align: center;"><b>Sunny, Breezy</b></td> <td style="text-align: center;"><b>Sunny</b></td> </tr> <tr> <td style="text-align: center;"><u>Before Sampling</u></td> <td style="text-align: center;"><u>After Sampling</u></td> </tr> <tr> <td style="text-align: center;"><b>80.9</b></td> <td style="text-align: center;"><b>83.4</b></td> </tr> <tr> <td style="text-align: center;"><b>29.81</b></td> <td style="text-align: center;"><b>29.77</b></td> </tr> </table>	<u>Pre-opening</u>	<u>Post-collection</u>	<b>30</b>	<b>5</b>	<u>Before Sampling</u>	<u>After Sampling</u>	<b>88.7</b>	<b>86.4</b>	<b>29.82</b>	<b>29.77</b>	<b>SE</b>	<b>SE</b>	<b>Sunny, Breezy</b>	<b>Sunny</b>	<u>Before Sampling</u>	<u>After Sampling</u>	<b>80.9</b>	<b>83.4</b>	<b>29.81</b>	<b>29.77</b>
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<p>Did Summa Canister go to ambient pressure? <b>No</b></p> <p>PID readings at sample location (ppb): <b>13</b></p> <p>Photographs taken before sampling by: <b>N. Slagowski</b></p> <p>Was the building aired out prior to sample collection? <b>No</b></p> <p>Windows open? <b>No</b>                      Ventilation fans? <b>No</b></p> <p>Was there significant precipitation within 12 hours of (or during) the sampling event? <b>No</b></p>																					
<p>Were any of the residents at home during sampling? <b>No</b></p> <p>If yes, provide detail:</p>	<p>Did any of the occupants NOT follow instruction for residents? <b>No</b>    If yes, describe:</p>																				
<p>Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.</p>          <p>Air intake at <b>3' 11"</b> above the floor.</p> <p>* Estimated reading beyond gauge pressure markings. <span style="float: right;">NM=Not Measured</span></p>																					





## Indoor Air Sampling Checklist

Sampling Location:  
**19-19A Morton Street**

Sample ID: **045162-19MORT-B**

Date:	<b>18-Aug-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M153</b>	Sampling Start Time:	<b>2:02 PM</b>
Flow Regulator ID:	<b>MC121</b>	Sampling Finish Time:	<b>6:05 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>28.5</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>88.7</b>	<b>86.1</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.77</b>
Prevailing Wind Direction:	<b>SE</b>	<b>SE</b>
General Weather Conditions:	<b>Sunny, Breezy</b>	<b>Sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>73.7</b>	<b>76.4</b>
Barometric Pressure (in. Hg):	<b>29.81</b>	<b>29.77</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **14**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No** If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 0"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 19 Morton Street (August 18, 2008)**



045612-19MORT-1



045162-19MORT-B



## Indoor Air Sampling Checklist

Sampling Location:  
**7 Morton Street**

Sample ID: **045162-7MORT-1**

Date:	<b>18-Aug-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M157</b>	Sampling Start Time:	<b>12:57 PM</b>
Flow Regulator ID:	<b>MC133</b>	Sampling Finish Time:	<b>4:50 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>28.5</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>85.1</b>	<b>86.1</b>
Barometric Pressure (in. Hg):	<b>29.83</b>	<b>29.76</b>
Prevailing Wind Direction:	<b>SE</b>	<b>SE</b>
General Weather Conditions:	<b>Sunny, Breezy</b>	<b>Sunny, Breezy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>81.8</b>	<b>86.3</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.74</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **16**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **Yes**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **Yes**  
If yes, provide detail:  
**Residents were present during sampling.**

Did any of the occupants NOT follow instruction for residents? **Yes**    If yes, describe:  
**The windows were open in all but one room.**

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**The sampling can was originally placed in the kitchen, and after being open for one minute, I noticed that the window was open. The can was closed, and re-opened in the bedroom at the front of the house that had closed windows and a closed door.**

Air intake at **3' 4"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**7 Morton Street**

Sample ID: **045162-7MORT-B**

Date:	<b>18-Aug-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M215</b>	Sampling Start Time:	<b>1:01 PM</b>
Flow Regulator ID:	<b>MC128</b>	Sampling Finish Time:	<b>4:52 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>6</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>85.1</b>	<b>86.1</b>
Barometric Pressure (in. Hg):	<b>29.83</b>	<b>29.76</b>
Prevailing Wind Direction:	<b>SE</b>	<b>SE</b>
General Weather Conditions:	<b>Sunny, Breezy</b>	<b>Sunny, Breezy</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>78.8</b>	<b>80.4</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.76</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **16**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **Yes**

If yes, provide detail:

**The residents were present on the first floor.**

Did any of the occupants NOT follow instruction

for residents? **No** If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 6"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 7 Morton Street (August 18, 2008)**



045162-7MORT-1



045162-7MORT-B



## Indoor Air Sampling Checklist

Sampling Location:  
**85 Washington Street**

Sample ID: **045162-85WASH-AUDI**

Date:	<b>18-Aug-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M247</b>	Sampling Start Time:	<b>1:39 PM</b>
Flow Regulator ID:	<b>MC130</b>	Sampling Finish Time:	<b>5:44 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>90.8</b>	<b>86.1</b>
Barometric Pressure (in. Hg):	<b>29.81</b>	<b>29.77</b>
Prevailing Wind Direction:	<b>SE</b>	<b>SE</b>
General Weather Conditions:	<b>Sunny, Breezy</b>	<b>Sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>75.2</b>	<b>77.1</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.77</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **16**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **Yes**  
If yes, provide detail:  
**Three to four church workers were present during the sampling.**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:


Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 0"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



	<h2 style="text-align: center;">Indoor Air Sampling Checklist</h2>		Sampling Location: <b>85 Washington Street</b>
		Sample ID: <b>045162-85WASH-PARK</b>	
Date:	<b>18-Aug-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M225</b>	Sampling Start Time:	<b>1:42 PM</b>
Flow Regulator ID:	<b>MC126</b>	Sampling Finish Time:	<b>5:48 PM</b>
Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>	
Summa Canister Vacuum (in. Hg):	<b>29.5</b>	<b>6</b>	
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>	
Temperature (°F):	<b>90.8</b>	<b>86.1</b>	
Barometric Pressure (in. Hg):	<b>29.81</b>	<b>29.77</b>	
Prevailing Wind Direction:	<b>SE</b>	<b>SE</b>	
General Weather Conditions:	<b>Sunny, Breezy</b>	<b>Sunny</b>	
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>	
Temperature (°F):	<b>78.8</b>	<b>78.2</b>	
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.77</b>	
Did Summa Canister go to ambient pressure? <b>No</b> PID readings at sample location (ppb): <b>16</b> Photographs taken before sampling by: <b>N. Slagowski</b> Was the building aired out prior to sample collection? <b>No</b> Windows open? <b>No</b> Ventilation fans? <b>No</b> Was there significant precipitation within 12 hours of (or during) the sampling event? <b>No</b>			
Were any of the residents at home during sampling? <b>Yes</b> If yes, provide detail: <b>Three to four church workers were present during the sampling.</b>		Did any of the occupants NOT follow instruction for residents? <b>No</b> If yes, describe:	
Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.          Air intake at <b>3' 10"</b> above the floor. * Estimated reading beyond gauge pressure markings.			

NM=Not Measured

**Air Sampling: 85 Washington Street (August 18, 2008)**



045162-85WASH-AUDI



045162-85WASH-PARK

GEI



## Indoor Air Sampling Checklist

Sampling Location:  
**19 Knowlton Street**

Sample ID: 045162-19KNOW-1

Date: **21-Aug-08** Sample Type: **Indoor**  
Sampling Personnel: **N. Slagowski** Analysis Method: **TO-15**  
Summa Canister ID: **M005** Sampling Start Time: **1:13 PM**  
Flow Regulator ID: **MC136** Sampling Finish Time: **5:10 PM**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>5.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>84.2</b>	<b>82.7</b>
Barometric Pressure (in. Hg):	<b>30.17</b>	<b>30.17</b>
Prevailing Wind Direction:	<b>W</b>	<b>NW</b>
General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>80.7</b>	<b>80.6</b>
Barometric Pressure (in. Hg):	<b>30.17</b>	<b>30.15</b>

Did Summa Canister go to ambient pressure? **No**  
PID readings at sample location (ppb): **NM**  
Photographs taken before sampling by: **N. Slagowski**  
Was the building aired out prior to sample collection? **Yes**  
Windows open? **Yes** Ventilation fans? **No**  
Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **Yes**  
If yes, provide detail:  
**Residents were present during sampling.**

Did any of the occupants NOT follow instruction for residents? **Yes** If yes, describe:  
**The windows were open in most rooms.**

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**The sample was collected in a small laundry room in the back of the house, which was the only room that was closed off from the rest of the house and did not have open windows.**

Air intake at **4' 9"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**19 Knowlton Street**

Sample ID: 045162-19KNOW-B

Date:	<b>21-Aug-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M246</b>	Sampling Start Time:	<b>1:17 PM</b>
Flow Regulator ID:	<b>MC115</b>	Sampling Finish Time:	<b>5:27 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>6.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>84.2</b>	<b>82.7</b>
Barometric Pressure (in. Hg):	<b>30.17</b>	<b>30.17</b>
Prevailing Wind Direction:	<b>W</b>	<b>NW</b>
General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>74.3</b>	<b>74.6</b>
Barometric Pressure (in. Hg):	<b>30.17</b>	<b>30.15</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **NM**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **Yes**  
If yes, provide detail:  
**Residents were present on the first floor.**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 1"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 19 Knowlton Street (August 21, 2008)**



045162-19KNOW-1



045162-19KNOW-B



## Indoor Air Sampling Checklist

Sampling Location:  
**27 Tufts Street**

Sample ID: **045163-27TUFT-1**

Date:	<b>08-Sep-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>T. Daigle</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M139</b>	Sampling Start Time:	<b>1:03 PM</b>
Flow Regulator ID:	<b>MFC011</b>	Sampling Finish Time:	<b>4:59 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>6</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>76</b>	<b>78</b>
Barometric Pressure (in. Hg):	<b>30.03</b>	<b>29.99</b>
Prevailing Wind Direction:	<b>S</b>	<b>W</b>
General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>76</b>	<b>77</b>
Barometric Pressure (in. Hg):	<b>30.03</b>	<b>29.99</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **NM**

Photographs taken before sampling by: **T. Daigle**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**There was an equipment failure for this sample, and it was recollected on September 26, 2008.**

Air intake at **4' 7"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**27 Tufts Street**

Sample ID: 045163-27TUFT-1(2)

Date:	<b>08-Sep-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>T. Daigle</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M233</b>	Sampling Start Time:	<b>1:04 PM</b>
Flow Regulator ID:	<b>MFC009</b>	Sampling Finish Time:	<b>5:00 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>28</b>	<b>6</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>76</b>	<b>78</b>
Barometric Pressure (in. Hg):	<b>30.03</b>	<b>29.99</b>
Prevailing Wind Direction:	<b>S</b>	<b>W</b>
General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>76</b>	<b>77</b>
Barometric Pressure (in. Hg):	<b>30.03</b>	<b>29.99</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **NM**

Photographs taken before sampling by: **T. Daigle**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**There was an equipment failure for this sample, and it was recollected on September 26, 2008.**

Air intake at **4' 7"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**27 Tufts Street**

Sample ID: 045163-27TUFT-B

Date:	<b>08-Sep-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>T. Daigle</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M209</b>	Sampling Start Time:	<b>1:07 PM</b>
Flow Regulator ID:	<b>MC114</b>	Sampling Finish Time:	<b>5:23 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>7</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>76</b>	<b>78</b>
Barometric Pressure (in. Hg):	<b>30.03</b>	<b>29.99</b>
Prevailing Wind Direction:	<b>S</b>	<b>W</b>
General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>74</b>	<b>75</b>
Barometric Pressure (in. Hg):	<b>30.04</b>	<b>29.99</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **NM**

Photographs taken before sampling by: **T. Daigle**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No** If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**There was an equipment failure for this sample, and it was recollected on September 26, 2008.**

Air intake at **4' 4"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**27 Tufts Street**

Sample ID: **045163-27TUFT-B(2)**

Date:	<b>08-Sep-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>T. Daigle</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M235</b>	Sampling Start Time:	<b>1:08 PM</b>
Flow Regulator ID:	<b>MC092</b>	Sampling Finish Time:	<b>4:56 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>25</b>	<b>3</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>76</b>	<b>78</b>
Barometric Pressure (in. Hg):	<b>30.03</b>	<b>29.99</b>
Prevailing Wind Direction:	<b>S</b>	<b>W</b>
General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>74</b>	<b>75</b>
Barometric Pressure (in. Hg):	<b>30.04</b>	<b>29.99</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **NM**

Photographs taken before sampling by: **T. Daigle**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 4"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



**Air Sampling: 27 Tufts Street (September 8, 2008)**



045163-27TUFT-1 and 1(2) before



045163-27TUFT-B and B(2) before



045163-27TUFT-1 and 1(2) after



045163-27TUFT-B and B(2) after



## Indoor Air Sampling Checklist

Sampling Location:  
**156 Glen Street**

Sample ID: **045163-156GLEN-1**

Date:	<b>17-Sep-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M025</b>	Sampling Start Time:	<b>1:04 PM</b>
Flow Regulator ID:	<b>MC142</b>	Sampling Finish Time:	<b>5:02 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>74.1</b>	<b>68.9</b>
Barometric Pressure (in. Hg):	<b>30.05</b>	<b>30.00</b>
Prevailing Wind Direction:	<b>NE</b>	<b>NE</b>
General Weather Conditions:	<b>Sunny, Clear</b>	<b>Sunny, Clear</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>75.9</b>	<b>71.9</b>
Barometric Pressure (in. Hg):	<b>30.05</b>	<b>30.00</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **Yes**  
If yes, provide detail:  
**One resident was home during sampling.**

Did any of the occupants NOT follow instruction for residents? **Yes**    If yes, describe:  
**There was an air purifier running before the sample was taken.**


Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**There was an air purifier running when the sample began. The resident came home about 15 minutes into the sample, and informed the owner that an air purifier was running. At that point the purifier was shut off.**

Air intake at **2' 10"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

	<h2 style="text-align: center;">Indoor Air Sampling Checklist</h2>	<p>Sampling Location: <b>156 Glen Street</b></p>
		<p>Sample ID: <b>045163-156GLEN-B</b></p>
<p>Date: <b>17-Sep-08</b></p> <p>Sampling Personnel: <b>N. Slagowski</b></p> <p>Summa Canister ID: <b>M132</b></p> <p>Flow Regulator ID: <b>MC124</b></p>	<p>Sample Type: <b>Indoor</b></p> <p>Analysis Method: <b>TO-15</b></p> <p>Sampling Start Time: <b>1:09 PM</b></p> <p>Sampling Finish Time: <b>5:04 PM</b></p>	
<p>Pressure gauge reading:</p> <p>Summa Canister Vacuum (in. Hg):</p> <p>Environmental Conditions (Outside):</p> <p>Temperature (°F):</p> <p>Barometric Pressure (in. Hg):</p> <p>Prevailing Wind Direction:</p> <p>General Weather Conditions:</p> <p>Environmental Conditions (Inside):</p> <p>Temperature (°F):</p> <p>Barometric Pressure (in. Hg):</p>	<p><u>Pre-opening</u></p> <p><b>29</b></p> <p><u>Before Sampling</u></p> <p><b>74.1</b></p> <p><b>30.05</b></p> <p><b>NE</b></p> <p><b>Sunny, Clear</b></p> <p><u>Before Sampling</u></p> <p><b>71.2</b></p> <p><b>30.05</b></p>	<p><u>Post-collection</u></p> <p><b>5</b></p> <p><u>After Sampling</u></p> <p><b>68.9</b></p> <p><b>30.00</b></p> <p><b>NE</b></p> <p><b>Sunny, Clear</b></p> <p><u>After Sampling</u></p> <p><b>71.2</b></p> <p><b>30.00</b></p>
<p>Did Summa Canister go to ambient pressure? <b>No</b></p> <p>PID readings at sample location (ppb): <b>18</b></p> <p>Photographs taken before sampling by: <b>N. Slagowski</b></p> <p>Was the building aired out prior to sample collection? <b>No</b></p> <p>Windows open? <b>Yes</b>      Ventilation fans? <b>No</b></p> <p>Was there significant precipitation within 12 hours of (or during) the sampling event? <b>No</b></p>		
<p>Were any of the residents at home during sampling? <b>Yes</b></p> <p>If yes, provide detail:</p> <p><b>A resident was home upstairs.</b></p>	<p>Did any of the occupants NOT follow instruction for residents? <b>Yes</b>    If yes, describe:</p> <p><b>A window was open.</b></p>	
<p>Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.</p> <p><b>There was one window open, and paint cans in one corner of the basement. The sample was collected on the opposite side of the basement from the open window and paint cans.</b></p> <p>Air intake at    <b>3' 4"</b> above the floor.</p> <p>* Estimated reading beyond gauge pressure markings.</p> <p style="text-align: right;">NM=Not Measured</p>		



**Air Sampling: 156 Glen Street (September 17, 2008)**



045163-156GLEN-1



045163-156GLEN-B



## Indoor Air Sampling Checklist

Sampling Location:  
**21 Morton Street**

Sample ID: **045163-21MORT-B**

Date:	<b>17-Sep-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>N. Slagowski</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M229</b>	Sampling Start Time:	<b>1:30 PM</b>
Flow Regulator ID:	<b>MC075</b>	Sampling Finish Time:	<b>5:35 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>7</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>74.1</b>	<b>69.2</b>
Barometric Pressure (in. Hg):	<b>30.05</b>	<b>29.99</b>
Prevailing Wind Direction:	<b>NE</b>	<b>NE</b>
General Weather Conditions:	<b>Sunny, Clear</b>	<b>Sunny, Clear</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>72.3</b>	<b>71.7</b>
Barometric Pressure (in. Hg):	<b>30.04</b>	<b>29.99</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **18**

Photographs taken before sampling by: **N. Slagowski**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were any of the residents at home during sampling? **Yes**

If yes, provide detail:

**Residents were home upstairs.**

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 5"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 21 Morton Street (September 17, 2008)**



045163-21MORT-B





## Indoor Air Sampling Checklist

Sampling Location:  
**27 Tufts Street**

Sample ID: **045163-27TUFT-1**

Date:	<b>26-Sep-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>T. Daigle</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M047</b>	Sampling Start Time:	<b>2:19 PM</b>
Flow Regulator ID:	<b>MFC035</b>	Sampling Finish Time:	<b>5:41 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>1</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>68</b>	<b>64</b>
Barometric Pressure (in. Hg):	<b>30.21</b>	<b>30.14</b>
Prevailing Wind Direction:	<b>E</b>	<b>E</b>
General Weather Conditions:	<b>Rain</b>	<b>Rain</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>68</b>	<b>68</b>
Barometric Pressure (in. Hg):	<b>30.21</b>	<b>30.14</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **NM**

Photographs taken before sampling by: **T. Daigle**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No** If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 7"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**27 Tufts Street**

Sample ID: **045163-27TUFT-1(2)**

Date:	<b>26-Sep-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>T. Daigle</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M073</b>	Sampling Start Time:	<b>2:19 PM</b>
Flow Regulator ID:	<b>MC005</b>	Sampling Finish Time:	<b>6:24 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30*</b>	<b>6</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>68</b>	<b>64</b>
Barometric Pressure (in. Hg):	<b>30.21</b>	<b>30.14</b>
Prevailing Wind Direction:	<b>E</b>	<b>E</b>
General Weather Conditions:	<b>Rain</b>	<b>Rain</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>68</b>	<b>68</b>
Barometric Pressure (in. Hg):	<b>30.21</b>	<b>30.14</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **NM**

Photographs taken before sampling by: **T. Daigle**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No**    If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 7"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**27 Tufts Street**

Sample ID: **045163-27TUFT-B**

Date:	<b>26-Sep-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>T. Daigle</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M222</b>	Sampling Start Time:	<b>2:24 PM</b>
Flow Regulator ID:	<b>MC131</b>	Sampling Finish Time:	<b>6:27 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>6</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>68</b>	<b>64</b>
Barometric Pressure (in. Hg):	<b>30.21</b>	<b>30.14</b>
Prevailing Wind Direction:	<b>E</b>	<b>E</b>
General Weather Conditions:	<b>Rain</b>	<b>Rain</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>66</b>	<b>67</b>
Barometric Pressure (in. Hg):	<b>30.21</b>	<b>30.14</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **NM**

Photographs taken before sampling by: **T. Daigle**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No**      If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 4"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**27 Tufts Street**

Sample ID: **045163-27TUFT-B(2)**

Date:	<b>26-Sep-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>T. Daigle</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M134</b>	Sampling Start Time:	<b>2:24 PM</b>
Flow Regulator ID:	<b>MFC037</b>	Sampling Finish Time:	<b>6:28 PM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>6</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>68</b>	<b>64</b>
Barometric Pressure (in. Hg):	<b>30.21</b>	<b>30.14</b>
Prevailing Wind Direction:	<b>E</b>	<b>E</b>
General Weather Conditions:	<b>Rain</b>	<b>Rain</b>
Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>66</b>	<b>67</b>
Barometric Pressure (in. Hg):	<b>30.21</b>	<b>30.14</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **NM**

Photographs taken before sampling by: **T. Daigle**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**

Were any of the residents at home during sampling? **No**  
If yes, provide detail:

Did any of the occupants NOT follow instruction for residents? **No**    If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **4' 4"** above the floor.

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

**Air Sampling: 27 Tufts Street (September 26, 2008)**



045163-27TUFT-1 and 1(2) before



045163-27TUFT-B and B(2) before



045163-27TUFT-1 and 1(2) after



045163-27TUFT-B and B(2) after







Geotechnical  
Environmental and  
Water Resources  
Engineering





## Appendix J

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### 60 Tufts Street – Work Plan





Geotechnical  
Environmental and  
Water Resources  
Engineering

September 4, 2008  
Project 04516-3

Tim Paoli  
Regional Portfolio Manager  
Greater Boston Properties, Inc.  
696 Tremont Street  
Boston, MA 02118

Dear Mr. Paoli:

**Re: Sub-Slab Depressurization System Work Plan  
60 Tufts Street  
Somerville, Massachusetts**

On behalf of UniFirst Corporation, GEI Consultants, Inc. is providing this work plan for the installation of a Sub-Slab Depressurization System (SSDS) at 60 Tufts Street, Somerville, Massachusetts. The purpose of the SSDS is to capture soil vapor from below the foundation slab and control potential migration into indoor air. The SSDS will use vacuum blowers to induce flow of soil vapor from the subsurface via piping and vent the soil vapor above the roofline. An SSDS is a commonly used system for intercepting compounds, including radon, beneath building foundations before they can migrate to indoor air. An SSDS has been operating successfully at the neighboring property, 50 Tufts Street, since April 2007.

### **Background & Investigations**

The building at 60 Tufts Street consists of 17 condominium units and a parking garage deck. Chlorinated volatile organic compounds (VOCs) have been detected in soil vapor below the building foundation. A plan of the 60 Tufts Street basement/ground floor area is in Fig. 1.

In January 2008 GEI conducted a soil vapor extraction pilot test in the basement of the building at 60 Tufts Street. Soil vapor was extracted from three temporary extraction points for 24 hours and soil vapor pressure and VOC concentrations were monitored. As part of the pilot test GEI also conducted a soil vapor communication test to evaluate the vacuum radius of influence at various locations across the basement. The results of the pilot test indicate that soil vapor extraction can be an effective method of reducing VOCs in sub-slab soil vapor at 60 Tufts Street and will likely control potential migration of VOCs from the sub surface into indoor air. The results of the test were also used to determine the appropriate number and spacing of sub-slab extraction points for the proposed SSDS.

As part of the SSDS design process for the 60 Tufts Street building, we investigated the unexcavated area in May 2008 underneath Condominium Units 3 and 4 (Fig. 1), which is enclosed by fieldstone and brick foundation walls. The investigation included installing two approximately 12-inch by 24-inch observation holes through the foundation wall one located in the Mechanical Room, one in Storage Area S, and one 1-inch-diameter hole adjacent to storage areas A through D. The observation holes were created by drilling through and then removing cinderblocks and bricks in the foundation wall. We did not observe a crawl space and observed the unexcavated area filled with fill material that included sand, gravel, coal fragments/ash, brick, mortar fragments, and concrete.

## **SSDS Design**

Based on results of our tests and investigations we recommend soil vapor extraction points through the foundation slab that are connected to vertical extraction pipes. We recommend installing horizontal extraction points under Units 3 and 4 since an accessible crawl space was not observed. The final locations of extraction points will be selected in consultation with individual unit owners and The Sanctuary Condominium Trust (the Trust).

SSDS installation will require identifying suitable locations for the vacuum blowers, horizontal piping, extraction points, and ventilation piping. Selection of the final locations of these components will depend on existing utility conduit locations, foundation conditions, electrical service capability, and unit owner and the Trust approval.

The SSDS conceptual design shown in Fig. 2 depicts a potential blower enclosure located in the lower parking garage area at the southwest corner of the building. The mechanical equipment would likely be enclosed in a locked fence or shed and may include electric vacuum blowers with gauges and controls, a moisture separator with high level switches, an alarm notification system, and particulate filters. The proposed exhaust vent pipe would extend through the parking garage deck and will discharge above the eave-line at the southwest building corner. Based on Massachusetts Department of Environmental Protection (DEP) guidance, the system will not require off-gas treatment.

## **SSDS Installation**

The elements of the work plan are described below in order of their proposed implementation. The work plan and the "Agreement" will be reviewed by the Trust before it is implemented. A copy of the "Agreement" is in Attachment A.

The installation of the SSDS will likely consist of the following key elements:

- Execution of the Grant of Remediation Easement and Restrictions (the "Agreement") by UniFirst and Stakeholders.
- Excavation of extraction points through the concrete floor slab at the approximate locations depicted on Fig. 2. Six-inch-diameter cores will be made through the existing concrete floor slab. The extraction points below the concrete floor slab will be approximately 1 foot deep and 3 inches in diameter.
- Installing short sections of 3-inch-diameter slotted polyvinyl chloride (PVC) pipe into the extraction points and connecting the slotted pipes to solid PVC pipe at the floor slab elevation. The piping penetrations will be sealed with hydraulic cement.
- Advancing horizontal borings under the "unexcavated" area to allow for installation of slotted PVC pipe.
- Sealing of openings, cracks, or joints in the concrete floor slabs. In particular, openings in Storage Area S will be patched with hydraulic cement during installation.
- Re-pointing of fieldstone foundation where large openings are present near the floor-wall interface. This effort will likely reduce short circuiting of vacuum around the floor slab.
- The solid PVC piping network will be comprised of 3- and 4-inch-diameter pipe, be installed in common utility conduit areas, and extend from the Cross Street end of the building to the southwest corner and terminate at the blower enclosure.
- The blower enclosure will house the blowers, a moisture separator, controls, air filter, and auto-dialer alarm system. The enclosure will house two blowers, one centrifugal fan and one regenerative blower.



- The blowers will be powered by single and 3-phase services run from the main electrical room. A separate electric service meter for the blowers will be installed.
- The blowers will draw vapors from beneath the floor slab and will operate 24 hours per day. The control panel for the blowers will include an auto-dialer that will automatically notify GEI if the system were to shut down.
- Most of the piping will be located in common areas. The blower vent pipe will exit the blower and run vertically up the outside wall of the building to its discharge point approximately 4 feet above the eaves.
- We will coordinate access with the owners of the living and storage spaces before conducting the work.

### SSDS Startup and Monitoring

The existing network of 10 monitoring points as depicted in Fig. 1 will be monitored for vacuum and total VOC concentrations during SSDS startup. Total VOC concentrations will be monitored at network points using a photoionization detector (PID). Sub-slab vacuum at network points will be monitored using a manometer with a detection limit of -0.01-inches of water.

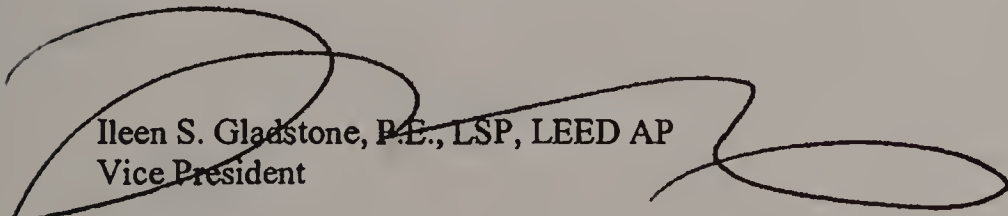
Following SSDS startup we will measure sub-slab VOC concentrations and vacuum at monitoring points and floor slab pipe penetrations on a weekly basis for one month.

The extent of influence of the system beneath the slab will be evaluated using manometer measurements. In order to confirm SSDS effectiveness we will also collect two rounds of indoor air samples in units where we have previously observed detections of chlorinated compounds to confirm system effectiveness. One of these samples will be collected during the winter months.

We appreciate your help in communicating with the unit owners. A copy of the Access Agreement If you have any immediate questions regarding the work plan please do not hesitate to contact Bill Simons at 781-721-4029 or [bsimons@geiconsultants.com](mailto:bsimons@geiconsultants.com), or contact me at 781-721-4012 or at [igladstone@geiconsultants.com](mailto:igladstone@geiconsultants.com).

Sincerely,

GEI CONSULTANTS, INC.



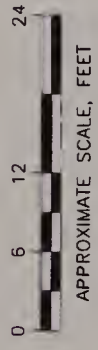
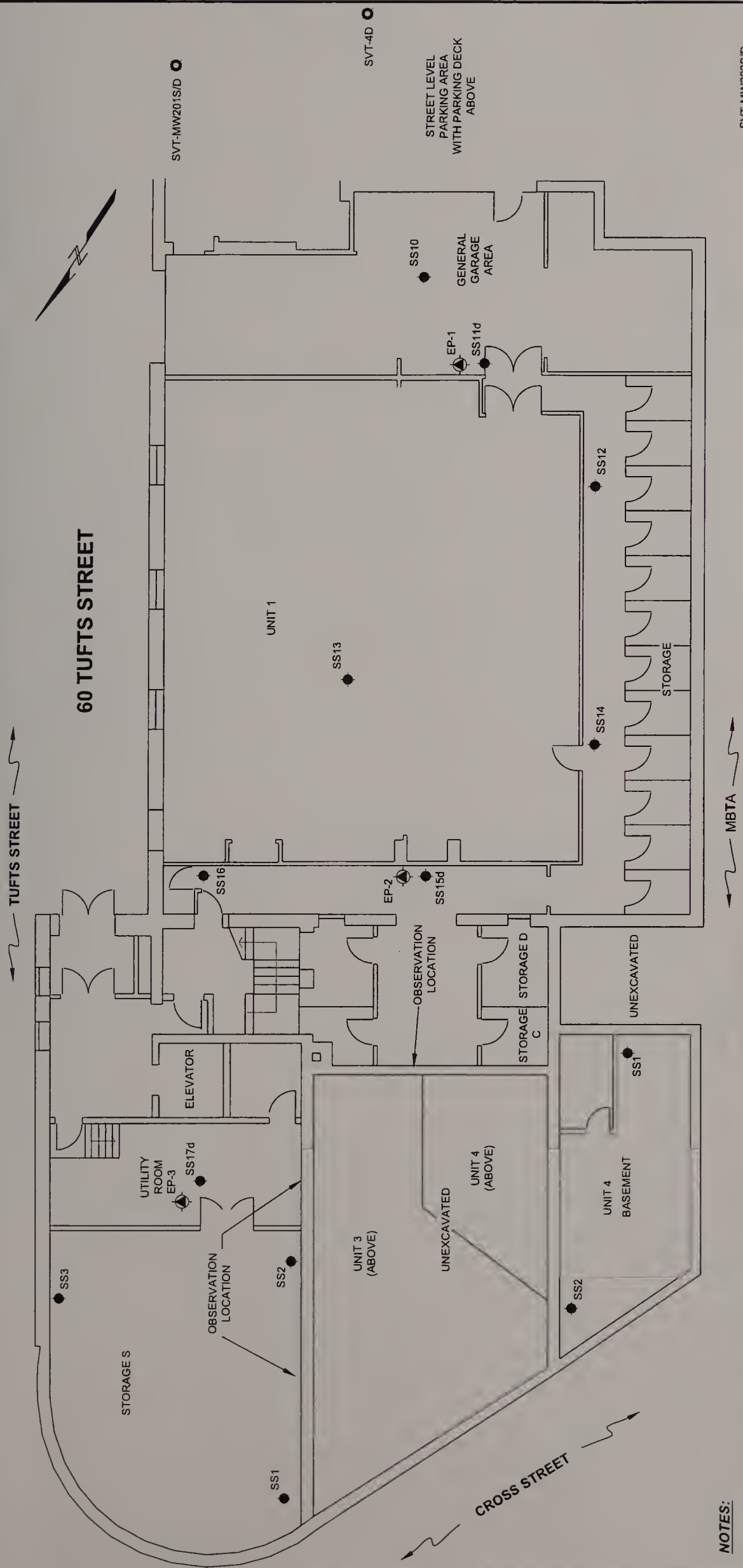
Ileen S. Gladstone, P.E., LSP, LEED AP  
Vice President

ISG/WFS:csh  
Enclosures

c: Margaret Singer, 60 Tufts Street, #1  
David Katz, 60 Tufts Street, #2  
Kate Castle, 60 Tufts Street, #4  
Dale Rosenkrantz, 60 Tufts Street, #7  
David Berwick, 60 Tufts Street, #10  
Ramana Lagemann, 60 Tufts Street, # 14  
Joseph Donahue, 60 Tufts Street, #16  
Irene M. Dale, Massachusetts Department of Environmental Protection  
Vithal V. Deshpande, City of Somerville  
John R. Badey, UniFirst Corporation







**LEGEND:**

- ▲ TEMPORARY SOIL VAPOR EXTRACTION POINT (DECOMMISSIONED)
- SOIL VAPOR MONITORING POINT
- SOIL VAPOR MONITORING POINT (SHALLOW OR DEEP)

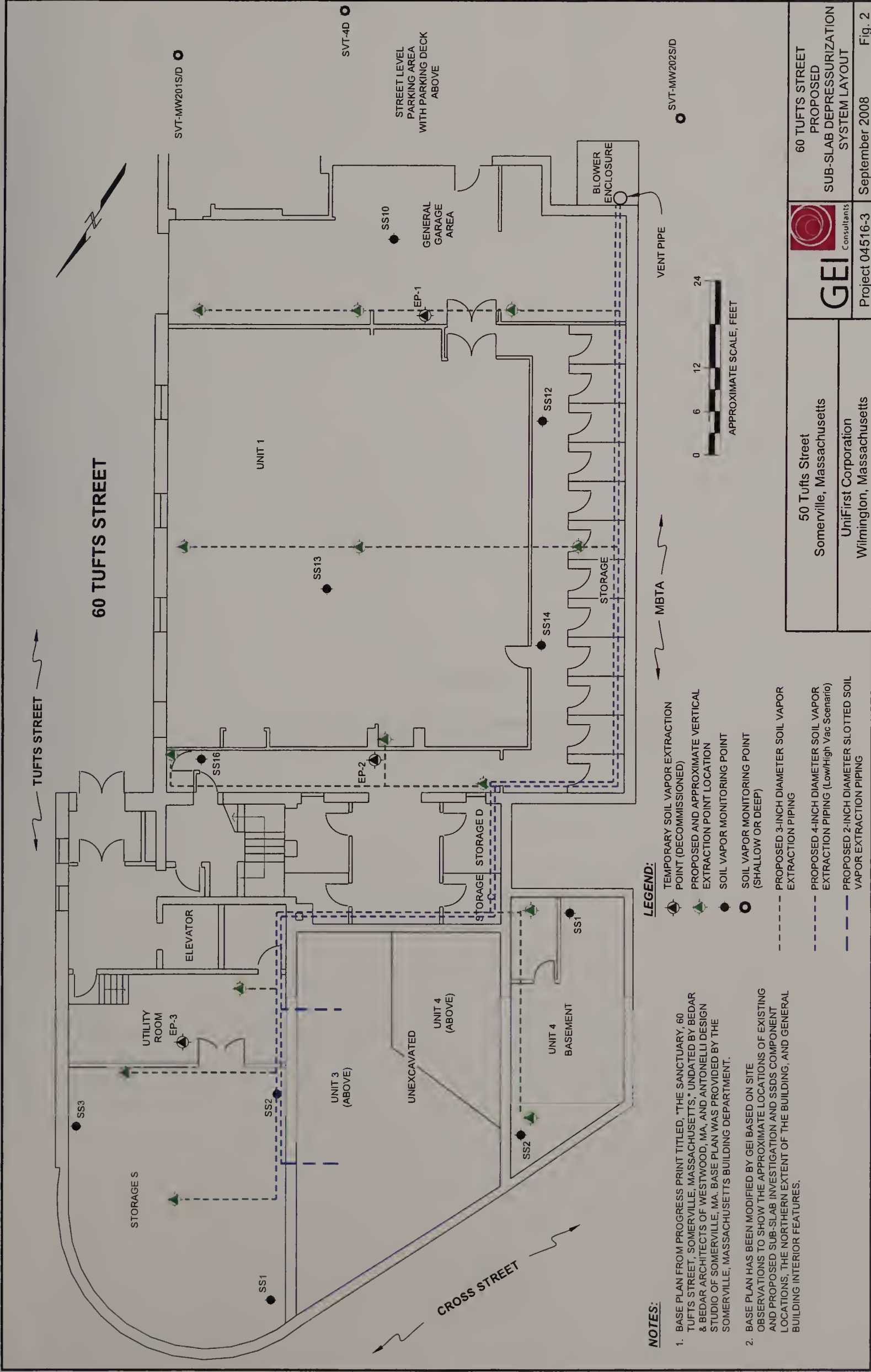
**NOTES:**

1. BASE PLAN FROM PROGRESS PRINT TITLED, "THE SANCTUARY, 60 TUFTS STREET, SOMERVILLE, MASSACHUSETTS," UNDATED BY BEDAR & BEDAR ARCHITECTS OF WESTWOOD, MA, AND ANTONELLI DESIGN STUDIO OF SOMERVILLE, MA. BASE PLAN WAS PROVIDED BY THE SOMERVILLE, MASSACHUSETTS BUILDING DEPARTMENT.
2. BASE PLAN HAS BEEN MODIFIED BY GEI BASED ON SITE OBSERVATIONS TO SHOW THE APPROXIMATE LOCATIONS OF EXISTING SUB-SLAB INVESTIGATION LOCATIONS, THE NORTHERN EXTENT OF THE BUILDING, AND GENERAL BUILDING INTERIOR FEATURES.

50 Tufts Street Somerville, Massachusetts		 <b>GEI</b> Consultants	60 TUFTS STREET EXISTING CONDITIONS	
UniFirst Corporation Wilmington, Massachusetts			Project 04516-3	September 2008
				Fig. 1









**Attachment A**

**Grant of Remediation Easement and Restrictions  
(the “Agreement”)**





## **GRANT OF REMEDIATION EASEMENT AND RESTRICTIONS**

This Grant of Remediation Easement and Restrictions (the "Agreement") is entered into as of \_\_\_\_\_ (the "Effective Date"), by and among UniFirst Corporation ("UniFirst"), The Sanctuary Condominium Trust, and the Condominium Unit Owners (collectively, the "Owners").

### **INTENT OF THE PARTIES**

UniFirst and the Owners (collectively, the "Parties") are entering this Agreement for the purposes, and in consideration of the mutual covenants and undertakings, set forth herein. The Parties acknowledge and agree that they are entering this Agreement for good and valuable consideration, the receipt of which is hereby acknowledged and the legal sufficiency of which is hereby conclusively established.

The Sanctuary Condominium Trust is the Owner of certain common areas, including the basement, common storage areas, and exterior, of the building (the "Building") situated upon certain real property located at 60 Tufts Street, Somerville, Massachusetts (the "Property"), more particularly described in Schedule A attached hereto and incorporated herein.

The Condominium Unit Owners are the owners individually of certain condominium units and deeded storage areas within the Building.

UniFirst has voluntarily agreed to make certain improvements to the Building, at no expense to the Owners, to inhibit vapors from intruding through the foundation of the Building (the "Exposure Pathway Elimination Measure" or "EPEM").

The Parties agree that it is in their mutual interest that UniFirst install such an Exposure Pathway Elimination Measure.

As more particularly set forth below, Owners therefore have agreed to: (i) grant UniFirst and its designees access to the Property to install, operate, monitor and maintain the EPEM; and (ii) exercise reasonable care not to cause damage to the EPEM.

## **I. Remediation Easement**

Owners hereby grant to UniFirst and its designees the right and easement to enter upon the Property for the purpose of installing an EPEM to inhibit vapors from intruding through the foundation of the Building located on the Property, and an easement for taking all actions necessary or appropriate for the operation, maintenance and monitoring of such EPEM once installed. The rights, privileges, benefits and burdens as established by these easements shall run with the land for the mutual benefit of the Owners and UniFirst. The easements herein granted shall be perpetual.

Neither the granting of the above-described easements nor any term or provision hereof shall be construed as, or constitute evidence of, an admission of any liability or wrongdoing by UniFirst or Owners.

## **II. Installation of the EPEM**

Except as otherwise provided in this Agreement, UniFirst shall bear all costs associated with installation, operation, monitoring, and maintenance of the EPEM.

Owners hereby acknowledge that the Owners have reviewed with the scientists and engineers from UniFirst's environmental consultants, GEI Consultants Inc. ("GEI"), the conceptual design of the EPEM, and has approved the conceptual design and work associated with the installation of the EPEM. Owners hereby acknowledge that the final design of the EPEM may be modified as the installation work progresses and the EPEM is monitored. UniFirst agrees that it shall keep the Owners apprised of the progress of the work and results of the monitoring.

Owners agree that UniFirst and/or its designees may act as an Authorized Agent of the Owners for the purpose of obtaining any and all permits required to install and maintain the EPEM, including but not limited to a permit to build, alter, or repair Building systems and/or components. Owners similarly agree that UniFirst and/or its designee may sign preliminary and final construction cost affidavits for the City of Somerville Inspectional Services Division to the extent required to obtain permits required to install and maintain the EPEM. To the extent necessary to obtain any permit required to install and maintain the EPEM, Owners shall: (i) sign a "Certificate of Good Standing" for inclusion in the application for such permit; and/or (ii) resolve any past due accounts with the City of Somerville Treasury Department.

Owners acknowledge that UniFirst and/or its designees may be required to temporarily interrupt electrical, water, sewer, natural gas, telephone, and/or heat in order to install and maintain the EPEM. To the extent such interruptions are necessary, UniFirst and/or its designees will schedule service interruptions at a time, and for a duration, that is convenient for the Owners and/or the Owners' tenants.

Owners further acknowledge that installation and maintenance of the EPEM may require modifications to the building envelope, foundation, utility services and systems, fenestration, and/or means of egress to the basement. Owners hereby give UniFirst and its designees permission to make such changes to the building as are reasonably necessary to install and/or maintain the EPEM. The Sanctuary Condominium Trust represents and warrants that it has



authority, and has taken all required steps under the Condominium documents for the Property (e.g., the Master Deed, By-laws, Declaration of Trust, etc.), to grant such permission for all common areas (including the basement, common storage areas, and exterior of the Building), and the Condominium Unit Owners represent and warrant that they have authority to grant such permission with respect to Unit 1, Unit 4, and their individually deeded storage areas.

UniFirst and/or its designee will manage and dispose of all construction debris generated in conjunction with the installation and maintenance of the EPEM. Notwithstanding the preceding sentence, if UniFirst and/or its designee shall encounter hazardous building materials not related to the 50 Tufts Street Site (e.g., asbestos insulation or building materials) during installation and maintenance of the EPEM, UniFirst shall bear the costs of removing and disposing of such hazardous building materials in accordance with applicable regulations, but a representative of the Owners shall sign any waste manifests required for such disposal.

### **III. Performance of the EPEM**

The objectives of the EPEM are: (i) to achieve a condition of No Significant Risk, as that term is defined in M.G.L. c. 21E and its implementing regulations at 310 CMR 40.0000 et seq., the Massachusetts Contingency Plan ("MCP"), as of the Effective Date; and (ii) to the extent feasible, eliminate or mitigate the transport of measurable concentrations of constituents of concern into living space. UniFirst agrees to make all best efforts to achieve a condition of No Significant Risk for the Property, and to the extent feasible, eliminate or mitigate the transport of measurable concentrations of constituents of concern into living space.

Upon completion of installation of the EPEM, UniFirst and/or its designees shall conduct sufficient monitoring, in the reasonable discretion of GEI, to confirm that the EPEM is functioning as designed. UniFirst and/or its designees shall, in a reasonably timely manner, make modifications to the EPEM if the monitoring indicates that such modifications are reasonably necessary to achieve a condition of No Significant Risk.

In accordance with the MCP, UniFirst shall submit to the Massachusetts Department of Environmental Protection a Response Action Outcome ("RAO") Statement, either separately for the Property or as part of a site-wide submission. Owners acknowledge that an Activity and Use Limitation ("AUL") may need to be placed on the Property in support of the RAO Statement, and hereby agree to authorize/nominate a representative to sign, and authorize recordation and implementation of, a Notice of Activity and Use Limitation for the Property prepared by GEI. In pertinent part, the purpose of the AUL will be to further memorialize the undertakings by UniFirst and Owners, on behalf of themselves and their executors, heirs, successors and assigns, concerning the installation, operation, maintenance, monitoring and preservation of the EPEM. Such AUL would include, for example, provisions relating to maintaining the integrity of the EPEM, and access to and use of the basement where the EPEM has been installed.

### **IV. Restricted Uses of Property**

The restrictions conveyed to UniFirst in this Section IV consist of covenants on the part of the Owners to do or refrain from doing the various acts set forth below and to allow UniFirst and its designees to install, operate, maintain, and monitor the EPEM without undue interference.



It is hereby acknowledged that these covenants shall constitute a servitude upon the land and run with the land.

Owners hereby agree and covenants that the Owners shall not, without the prior written consent of UniFirst alter or compromise the integrity of any components of the EPEM, including, but not limited to, electrical equipment, ventilation fans and piping, and EPEM labels.

## **V. Enforcement of the Restrictions**

UniFirst and/or its designees may make inspections of the Building and the EPEM at reasonable times, and upon reasonable notice to the Owners and tenants, to assure compliance by Owners with all of the covenants and restrictions herein. In the event that UniFirst becomes aware of any event or circumstance of non-compliance with the terms and conditions herein set forth, UniFirst shall give notice to the Owners of such event or circumstance of non-compliance and demand corrective action sufficient to abate such event or circumstance of non-compliance and restore the Property to its previous condition.

Failure by the Owners to discontinue, abate, or take such other corrective action as may be demanded by UniFirst within a reasonable time after receipt of notice and reasonable opportunity to take corrective action shall entitle, but not obligate, UniFirst to: (i) take corrective action itself to abate such event or circumstance of non-compliance; and/or (ii) bring an action in a court of competent jurisdiction to enforce the terms of this Agreement and to recover any damages from such non-compliance. If UniFirst chooses to take corrective action, the Owners shall reimburse UniFirst for all reasonable costs incurred by UniFirst in investigating the non-compliance and securing its correction. If UniFirst chooses to bring an action in a court of competent jurisdiction to enforce the terms of this Agreement and recovers any damages stemming from Owners' non-compliance with this Agreement, such damages, when recovered, shall be applied by UniFirst to corrective action on the Property, if necessary. If a court determines that the Owners have failed to comply with this Agreement, the Owners shall reimburse UniFirst for any reasonable costs of enforcement, including court costs and reasonable attorneys' and consultants' fees, in addition to any other payments ordered by such court. The Parties specifically acknowledge that events and circumstances of non-compliance constitute immediate and irreparable injury, loss, and damage and accordingly entitle UniFirst to such equitable relief, including but not limited to injunctive relief, as the court deems just. The remedies described herein are in addition to, and not in limitation of, any other remedies available to UniFirst at law, in equity, or through administrative proceedings.

No delay or omission by UniFirst in the exercise of any right or remedy upon any breach by the Owners shall impair UniFirst's rights or remedies or be construed as a waiver.

## **VI. Miscellaneous Provisions**

A. UniFirst shall be entitled to record this Agreement, or to record a notice making reference to the existence of this Agreement, in the Middlesex County Registry of Deeds. In any deed conveying an interest in all or part of the Property, the Owners shall make reference to the easement and restrictions described herein and shall indicate that said easement and restrictions

are binding upon all successors in interest in the Property in perpetuity. Owners shall also notify UniFirst of the name(s) and address(es) of Owner's successor(s) in interest.

B. The term "Owners" shall include the heirs, executors, administrators, successors and assigns of the original Owners, The Sanctuary Condominium Trust and Condominium Unit Owners. The term "UniFirst" shall include the successors and assigns of UniFirst Corporation.

C. This Agreement constitutes the complete agreement between the Parties and supersedes all prior understandings, negotiations, representations, and agreements, if any, between UniFirst and the Owners.

D. Each Party to this Agreement represents and warrants that it, and the person executing this Agreement on such Party's behalf, is fully authorized to execute this Agreement and to bind such Party to the terms and obligations set forth in this Agreement.

E. This Agreement shall be interpreted in accordance with, and the rights of the Parties governed by, Massachusetts law, without regard to choice of law principles. The Parties agree that all actions arising out of this Agreement shall only be brought in a state or federal court in the Commonwealth of Massachusetts, and each Party consents to venue in and jurisdiction of such court.

F. The Parties do not intend this Agreement to be construed against any Party merely because such Party or such Party's counsel drafted this Agreement or any portion hereof.

G. This Agreement is entered into by the Parties voluntarily. Each Party has had the opportunity to consult counsel in the execution of this Agreement, and each fully understands and acknowledges each limitation, restriction, and obligation which may be imposed by one against another pursuant to the terms and conditions of this Agreement. There have been no statements, representations, promises, undertakings, or inducements made to a Party by any other Party hereto, except as expressly set forth in this Agreement, that have induced any Party or Parties to enter into and/or execute this Agreement.

H. Any modification, amendment, or waiver of this Agreement (or portion of this Agreement) must be made in writing and signed by the Party to be charged with obligations arising from such modification, amendment, or waiver.

I. Invalidity of any provision hereof shall not affect any other provision of this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Grant of Remediation Easement and Restrictions as of the date and year first above written.

UNIFIRST CORPORATION

THE SANCTUARY  
CONDOMINIUM TRUST

BY, \_\_\_\_\_  
UniFirst Corporation

BY ITS TRUSTEES

\_\_\_\_\_  
Ramana Lagemann

\_\_\_\_\_  
Elliot D. Rosenkrantz

CONDOMINIUM UNIT OWNERS

\_\_\_\_\_  
Margaret Singer  
Owner, Unit 1

\_\_\_\_\_  
Kate Castle  
Owner, Unit 4



COMMONWEALTH OF MASSACHUSETTS

COUNTY OF

On this \_\_\_\_ day of \_\_\_\_\_, 2008, before me, the undersigned notary public, personally appeared \_\_\_\_\_, as \_\_\_\_\_ for UniFirst Corporation, proved to me through satisfactory evidence of identification, which was \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document and acknowledged to me that he/she signed it voluntarily for its stated purpose.

\_\_\_\_\_(official signature and seal of notary)

My commission expires: \_\_\_\_\_

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF

On this \_\_\_\_ day of \_\_\_\_\_, 2008, before me, the undersigned notary public, personally appeared \_\_\_\_\_, as a Member of The Sanctuary Condominium Trust, and proved to me through satisfactory evidence of identification, which was \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document and acknowledged to me that she signed it voluntarily for its stated purpose.

\_\_\_\_\_(official signature and seal of notary)

My commission expires: \_\_\_\_\_

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF

On this \_\_\_\_ day of \_\_\_\_\_, 2008, before me, the undersigned notary public, personally appeared \_\_\_\_\_, as a Member of The Sanctuary Condominium Trust, and proved to me through satisfactory evidence of identification, which was \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document and acknowledged to me that she signed it voluntarily for its stated purpose.

\_\_\_\_\_(official signature and seal of notary)

My commission expires: \_\_\_\_\_



COMMONWEALTH OF MASSACHUSETTS

COUNTY OF

On this \_\_\_\_ day of \_\_\_\_\_, 2008, before me, the undersigned notary public, personally appeared Margaret Singer, and proved to me through satisfactory evidence of identification, which was \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document and acknowledged to me that she signed it voluntarily for its stated purpose.

\_\_\_\_\_(official signature and seal of notary)

My commission expires: \_\_\_\_\_

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF

On this \_\_\_\_ day of \_\_\_\_\_, 2008, before me, the undersigned notary public, personally appeared Kate Castle, and proved to me through satisfactory evidence of identification, which was \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document and acknowledged to me that she signed it voluntarily for its stated purpose.

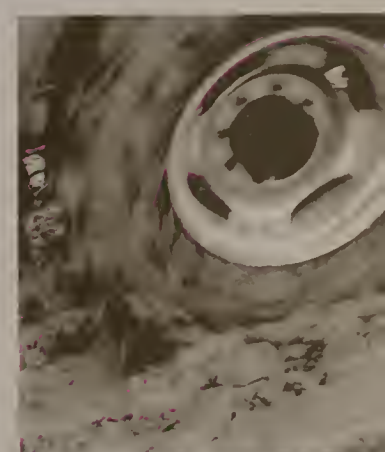
\_\_\_\_\_(official signature and seal of notary)

My commission expires: \_\_\_\_\_

LIBB/1597825.1



Geotechnical  
Environmental and  
Water Resources  
Engineering





## Appendix K

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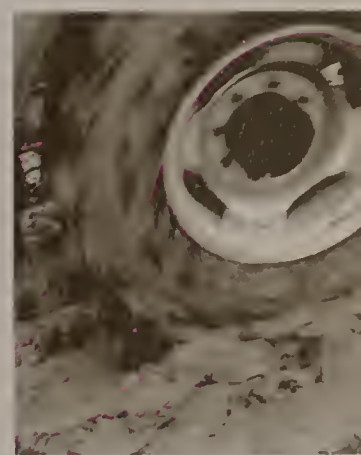
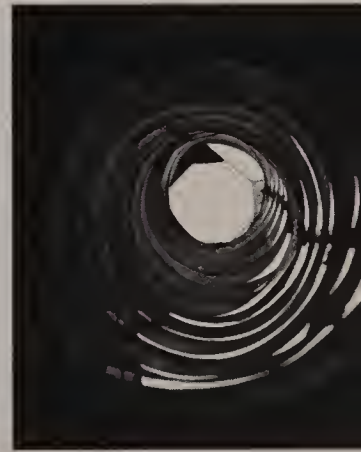
Disposal Documentation (On enclosed CD)







Geotechnical  
Environmental and  
Water Resources  
Engineering





## Appendix L

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### 50 Tufts Street – Field Monitoring Forms





## Weekly SSDS and SVE Inspection Log for 50 Tufts Street

GENERAL MONITORING INFORMATION			
GEI Field Representative(s):	S. Chervinsky	Monitoring Start Time:	18:30
		Monitoring End Time:	19:30
Date:	6/25/2008		
Weather:	Sunny, 75°		

INSTRUMENTATION INFORMATION				
Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?
PID (ppm)	Thermo Env. Instruments, Inc	580B	100 ppm Isobutylene	Yes
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading
Hot Wire Thermo-Anemometer (feet per minute)	Extech Instruments	407123	N/A	Zeroed before each reading

FIELD MEASUREMENTS / OBSERVATIONS						
System Status/Configuration		Pressure/VOC Measurements			System Flow Rate Data	
		Monitoring Point	Pressure (in. H <sub>2</sub> O)	VOC (ppm)	Thermo Anenometer Flow Velocity (feet per minute)	Estimated System Flowrate (CFM):
Fenced Enclosure Secure?	Yes	West Header	-4.02	8.4	4363	373
Blower On?	Yes	Center Header	-3.95	20.7		
Condensate Accumulated?	No	East Header	-1.88	29.7		
Condensate Drained?	N/A	North Header	-4.08	231.8		
Lead Carbon Unit?	B	South Header	6.98 <sup>(1)</sup>	1.7		
Polish Carbon Unit?	A	Combined System Influent	-5.32	23.3		
Offline Carbon Unit?	C	Lead Carbon Effluent	NM	28.4		
Offline Carbon Unit Status	Unused	System Discharge	N/A	1.6		
		Blower Filter Inlet	-21			
		Blower Filter Outlet	-20			

## COMMENTS

Ambient air = 0 ppm VOCs  
CFM = cubic feet per minute  
in. H<sub>2</sub>O = inches of water column  
N/A = not applicable  
NM = not measured  
PID = photoionization detector  
ppm = parts per million  
VOC = volatile organic compound

(1) Initial reading of 6.98 is believed to be due to port malfunction. The port was subsequently replaced.

## Weekly SSDS and SVE Inspection Log for 50 Tufts Street

GENERAL MONITORING INFORMATION			
GEI Field Representative(s):	S. Chervincky	Monitoring Start Time:	14:00
		Monitoring End Time:	16:00
Date:	6/27/2008		
Weather:	Rainy, 70°		

INSTRUMENTATION INFORMATION				
Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?
PID (ppm)	Thermo Env. Instruments, Inc	580B	100 ppm Isobutylene	Yes
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading
Hot Wire Thermo-Anemometer (feet per minute)	Extech Instruments	407123	N/A	Zeroed before each reading

FIELD MEASUREMENTS / OBSERVATIONS						
System Status/Configuration		Pressure/VOC Measurements			System Flow Rate Data	
		Monitoring Point	Pressure (in. H <sub>2</sub> O)	VOC (ppm)	Thermo Anenometer Flow Velocity (feet per minute)	Estimated System Flowrate (CFM):
Fenced Enclosure Secure?	Yes	West Header	-4.30	12.1	5438	465
Blower On?	Yes	Center Header	-4.26	25.4		
Condensate Accumulated?	No	East Header	-2.04	39.5		
Condensate Drained?	N/A	North Header	-4.47	330		
Lead Carbon Unit?	A	South Header	-4.49	8.6		
Polish Carbon Unit?	C	Combined System Influent	-5.77	33.1		
Offline Carbon Unit?	B	Lead Carbon Effluent	NM	2.1		
Offline Carbon Unit Status	Used	System Discharge	N/A	0		
		Blower Filter Inlet	-21			
		Blower Filter Outlet	-20			

### COMMENTS

Ambient air = 0 ppm VOCs  
 CFM = cubic feet per minute  
 in. H<sub>2</sub>O = inches of water column  
 N/A = not applicable  
 NM = not measured  
 PID = photoionization detector  
 ppm = parts per million  
 VOC = volatile organic compound

Readings taken after switching Tank A into lead and Tank C into polish (Tank B taken offline)

SSDS and SVE Inspection Log for 50 Tufts Street

GENERAL MONITORING INFORMATION			
GEI Field Representative(s):	S. Chervinsky	Monitoring Start Time:	11:45
	T. Daigle	Monitoring End Time:	13:00
Date:	7/16/2008		
Weather:	Sunny, 80°		

INSTRUMENTATION INFORMATION				
Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?
PID (ppm)	Thermo Env. Instruments, Inc	580B	100 ppm Isobutylene	Yes
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading
Hot Wire Thermo-Anemometer (feet per minute)	Extech Instruments	407123	N/A	Zeroed before each reading

FIELD MEASUREMENTS / OBSERVATIONS						
System Status/Configuration		Pressure/VOC Measurements			System Flow Rate Data	
		Monitoring Point	Pressure (in. H <sub>2</sub> O)	VOC (ppm)	Thermo Anenometer Flow Velocity (feet per minute)	Estimated System Flowrate (CFM):
Fenced Enclosure Secure?	Yes	West Header	-4.45	20.0	5486	463
Blower On?	Yes	Center Header	-4.42	52.7		
Condensate Accumulated?	No	East Header	-2.09	76.0		
Condensate Drained?	N/A	North Header	-4.55	424		
Lead Carbon Unit?	A	South Header	-2.01	1.2		
Polish Carbon Unit?	C	Combined System Influent	-5.96	65.2		
Offline Carbon Unit?	B	Lead Carbon Effluent	NM	0		
Offline Carbon Unit Status	Used	System Discharge	N/A	0		
		Blower Filter Inlet	-21			
		Blower Filter Outlet	-20			

COMMENTS

Ambient air = 0 to 0.3 ppm VOCs  
CFM = cubic feet per minute  
in. H<sub>2</sub>O = inches of water column  
N/A = not applicable  
N/M = not measured  
PID = photoionization detector  
ppm = parts per million  
VOC = volatile organic compound



SSDS and SVE Inspection Log for 50 Tufts Street

GENERAL MONITORING INFORMATION			
GEI Field Representative(s):	S. Chervincky	Monitoring Start Time:	10:00
		Monitoring End Time:	11:30
Date:	7/25/2008		
Weather:	Sunny, 80°		

INSTRUMENTATION INFORMATION				
Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?
PID (ppm)	Thermo Env. Instruments, Inc	580B	100 ppm Isobutylene	Yes
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading
Hot Wire Thermo-Anemometer (feet per minute)	Extech Instruments	407123	N/A	Zeroed before each reading

FIELD MEASUREMENTS / OBSERVATIONS						
System Status/Configuration		Pressure/VOC Measurements			System Flow Rate Data	
		Monitoring Point	Pressure (in. H <sub>2</sub> O)	VOC (ppm)	Thermo Anenometer Flow Velocity (feet per minute)	Estimated System Flowrate (CFM):
Fenced Enclosure Secure?	Yes	West Header	-4.04	28.7	NM	NM
Blower On?	Yes	Center Header	-4.00	92.2		
Condensate Accumulated?	No	East Header	-1.93	104		
Condensate Drained?	N/A	North Header	-4.16	775		
Lead Carbon Unit?	A	South Header	-4.15	175		
Secondary Carbon Unit?	B	Combined System Influent	-5.35	94.8		
Polish Carbon Unit?	C	Blower Effluent	56.5	N/A		
		Lead Carbon Effluent	43.1	66.7		
		Secondary Carbon Effluent	9.50	36.3		
		System Discharge	N/A	1.1		
		Blower Filter Inlet	-21			
		Blower Filter Outlet	-20			

COMMENTS

Ambient air = 0 to 0.2 ppm VOCs  
CFM = cubic feet per minute  
in. H<sub>2</sub>O = inches of water column  
N/A = not applicable  
NM = not measured  
PID = photoionization detector  
ppm = parts per million  
VOC = volatile organic compound

## SSDS and SVE Inspection Log for 50 Tufts Street

GENERAL MONITORING INFORMATION			
GEI Field Representative(s):	S. Chervinsky	Monitoring Start Time:	07:30
	T. Daigle	Monitoring End Time:	11:30
Date:	8/4/08 and 8/8/2008		
Weather:	Sunny, 80°		

INSTRUMENTATION INFORMATION				
Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?
PID (ppm)	Thermo Env. Instruments, Inc	580B	100 ppm Isobutylene	Yes
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading
Hot Wire Thermo-Anemometer (feet per minute)	Extech Instruments	407123	N/A	Zeroed before each reading

FIELD MEASUREMENTS / OBSERVATIONS						
System Status/Configuration		Pressure/VOC Measurements			System Flow Rate Data	
		Monitoring Point	Pressure (in. H <sub>2</sub> O)	VOC (ppm)	Thermo Anenometer Flow Velocity (feet per minute)	Estimated System Flowrate (CFM):
Fenced Enclosure Secure?	Yes	West Header	-3.98	13.8	3988	341
Blower On?	Yes	Center Header	-3.90	28.2		
Condensate Accumulated?	No	East Header	-1.79	27.5		
Condensate Drained?	N/A	North Header	-4.02	244.9		
Lead Carbon Unit?	A	South Header	-4.08	139.0		
Secondary Carbon Unit?	C	Combined System Influent	-5.21	36.6		
Polish Carbon Unit?	B	Blower Effluent	56.2	N/A		
		Lead Carbon Effluent	44.3	23.3		
		Secondary Carbon Effluent	9.33	0		
		System Effluent	N/A	0		
		Blower Filter Inlet	-21			
		Blower Filter Outlet	-20			

### COMMENTS

Ambient air = 0 ppm VOCs

CFM = cubic feet per minute

EP = extraction point

in. H<sub>2</sub>O = inches of water column

N/A = not applicable

NM = not measured

PID = photoionization detector

ppm = parts per million

SS = sub-slab point

VOC = volatile organic compound

Readings taken after carbon changeout.

Sub-slab extraction points and monitoring point data was collected on 8/4/08.

## SSDS and SVE Inspection Log for 50 Tufts Street

### SSDS Indoor Monitoring Points and Extraction Points

8/4/08 and

8/8/2008

Monitoring Point	Pressure (in. H <sub>2</sub> O)	VOC (ppm)
EP-W1	-3.533	NM
EP-W2	-2.775	NM
EP-W3	-2.063	NM
EP-W4	-1.571	NM
EP-W5	-1.194	NM
EP-W6	-1.285	NM
EP-W7	-1.194	NM
EP-W8	-1.247	NM
EP-C1	NM	NM
EP-C2	-3.566	NM
EP-C3	-3.350	NM
EP-C4	-3.189	NM
EP-C5	-3.050	NM
EP-C6	-2.827	NM
EP-C7	-2.400	NM
EP-C8	-2.672	NM
EP-C9	-2.711	NM
EP-E1	-1.719	NM
EP-E2	-1.690	NM
EP-E3	-1.599	NM
EP-E4	-1.561	NM
EP-E5	-1.594	NM
SS3	NM	NM
SS4	NM	NM
SS20	-0.080	NM
SS21	-0.580	NM
SS22	-0.520	NM
SS23	-0.300	NM
SS24	-0.410	NM
SS25	-0.680	NM
SS26	-0.370	NM
SS27	-0.150	NM

SSDS and SVE Inspection Log for 50 Tufts Street

GENERAL MONITORING INFORMATION			
GEI Field Representative(s):	S. Chervinsky	Monitoring Start Time:	07:30
	T. Daigle	Monitoring End Time:	11:30
Date:	8/4/08 and 8/8/2008		
Weather:	Sunny, 80°		

INSTRUMENTATION INFORMATION				
Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?
PID (ppm)	Thermo Env. Instruments, Inc	580B	100 ppm Isobutylene	Yes
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading
Hot Wire Thermo-Anemometer (feet per minute)	Extech Instruments	407123	N/A	Zeroed before each reading

FIELD MEASUREMENTS / OBSERVATIONS						
System Status/Configuration		Pressure/VOC Measurements			System Flow Rate Data	
		Monitoring Point	Pressure (in. H <sub>2</sub> O)	VOC (ppm)	Thermo Anenometer Flow Velocity (feet per minute)	Estimated System Flowrate (CFM):
Fenced Enclosure Secure?	Yes	West Header	-3.96	16.8	3972	340
Blower On?	Yes	Center Header	-3.90	32.5		
Condensate Accumulated?	No	East Header	-1.86	40.6		
Condensate Drained?	N/A	North Header	-4.02	273		
Lead Carbon Unit?	A	South Header	-4.05	148.5		
Secondary Carbon Unit?	B	Combined System Influent	-5.23	37.4		
Polish Carbon Unit?	C	Blower Effluent	56.3	N/A		
		Lead Carbon Effluent	46.6	21.2		
		Secondary Carbon Effluent	9.30	16.4		
		System Effluent	N/A	0.4		
		Blower Filter Inlet	-21			
		Blower Filter Outlet	-20			

COMMENTS

Ambient air = 0 ppm VOCs

CFM = cubic feet per minute

EP = extraction point

in. H<sub>2</sub>O = inches of water column

N/A = not applicable

NM = not measured

PID = photoionization detector

ppm = parts per million

SS = sub-slab point

VOC = volatile organic compound

Readings taken before carbon changeout.

Sub-slab extraction points and monitoring point data was collected on 8/4/08.



## SSDS and SVE Inspection Log for 50 Tufts Street

### SSDS Indoor Monitoring Points and Extraction Points

8/4/08 and

8/8/2008

Monitoring Point	Pressure (in. H <sub>2</sub> O)	VOC (ppm)
EP-W1	-3.533	NM
EP-W2	-2.775	NM
EP-W3	-2.063	NM
EP-W4	-1.571	NM
EP-W5	-1.194	NM
EP-W6	-1.285	NM
EP-W7	-1.194	NM
EP-W8	-1.247	NM
EP-C1	NM	NM
EP-C2	-3.566	NM
EP-C3	-3.350	NM
EP-C4	-3.189	NM
EP-C5	-3.050	NM
EP-C6	-2.827	NM
EP-C7	-2.400	NM
EP-C8	-2.672	NM
EP-C9	-2.711	NM
EP-E1	-1.719	NM
EP-E2	-1.690	NM
EP-E3	-1.599	NM
EP-E4	-1.561	NM
EP-E5	-1.594	NM
SS3	NM	NM
SS4	NM	NM
SS20	-0.080	NM
SS21	-0.580	NM
SS22	-0.520	NM
SS23	-0.300	NM
SS24	-0.410	NM
SS25	-0.680	NM
SS26	-0.370	NM
SS27	-0.150	NM

SSDS and SVE Inspection Log for 50 Tufts Street

GENERAL MONITORING INFORMATION			
GEI Field Representative(s):	S. Chervincky	Monitoring Start Time:	10:00
		Monitoring End Time:	12:30
Date:	8/15/2008		
Weather:	Sunny, 80°		

INSTRUMENTATION INFORMATION				
Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?
PID (ppm)	Thermo Env. Instruments, Inc	580B	100 ppm Isobutylene	Yes
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading
Hot Wire Thermo-Anemometer (feet per minute)	Extech Instruments	407123	N/A	Zeroed before each reading

FIELD MEASUREMENTS / OBSERVATIONS						
System Status/Configuration		Pressure/VOC Measurements			System Flow Rate Data	
		Monitoring Point	Pressure (in. H <sub>2</sub> O)	VOC (ppm)	Thermo Anenometer Flow Velocity (feet per minute)	Estimated System Flowrate (CFM):
Fenced Enclosure Secure?	Yes	West Header	-4.32	23.5	4330	370
Blower On?	Yes	Center Header	-3.94	44.9		
Condensate Accumulated?	No	East Header	-1.88	65.7		
Condensate Drained?	N/A	North Header	-4.09	458.0		
Lead Carbon Unit?	A	South Header	-4.07	197.7		
Secondary Carbon Unit?	C	Combined System Influent	-5.25	53.0		
Polish Carbon Unit?	B	Blower Effluent	54.1	N/A		
		Lead Carbon Effluent	41.1	4.0		
		Secondary Carbon Effluent	16.1	1.2		
		System Effluent	N/A	0.0		
		Blower Filter Inlet	-21			
		Blower Filter Outlet	-20			

COMMENTS

Ambient air = 0 ppm VOCs  
CFM = cubic feet per minute  
in. H<sub>2</sub>O = inches of water column  
N/A = Not Applicable  
PID = photoionization detector  
ppm = parts per million  
VOC = volatile organic compound

SSDS and SVE Inspection Log for 50 Tufts Street

GENERAL MONITORING INFORMATION			
GEI Field Representative(s):	S. Chervincky	Monitoring Start Time:	13:30
		Monitoring End Time:	16:00
Date:	8/19/2008		
Weather:	Sunny, 75°		

INSTRUMENTATION INFORMATION				
Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?
PID (ppm)	Thermo Env. Instruments, Inc	580B	100 ppm Isobutylene	Yes
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading
Hot Wire Thermo-Anemometer (feet per minute)	Extech Instruments	407123	N/A	Zeroed before each reading

FIELD MEASUREMENTS / OBSERVATIONS						
System Status/Configuration		Pressure/VOC Measurements			System Flow Rate Data	
		Monitoring Point	Pressure (in. H <sub>2</sub> O)	VOC (ppm)	Thermo Anenometer Flow Velocity (feet per minute)	Estimated System Flowrate (CFM):
Fenced Enclosure Secure?	Yes	West Header	-3.98	22.6	4303	368
Blower On?	Yes	Center Header	-3.95	37.0		
Condensate Accumulated?	No	East Header	-1.91	63.8		
Condensate Drained?	N/A	North Header	-4.07	416.0		
Lead Carbon Unit?	A	South Header	-4.05	172.0		
Secondary Carbon Unit?	C	Combined System Influent	-5.24	45.1		
Polish Carbon Unit?	B	Blower Effluent	53.5	N/A		
		Lead Carbon Effluent	40.7	51.8		
		Secondary Carbon Effluent	15.9	0.0		
		System Effluent	N/A	0.0		
		Blower Filter Inlet	-21			
		Blower Filter Outlet	-20			

COMMENTS
Ambient air = 0 ppm VOCs CFM = cubic feet per minute in. H <sub>2</sub> O = inches of water column N/A = Not Applicable PID = photoionization detector ppm = parts per million VOC = volatile organic compound

# SSDS and SVE Inspection Log for 50 Tufts Street

GENERAL MONITORING INFORMATION			
GEI Field Representative(s):	S. Chervinsky	Monitoring Start Time:	12:00
		Monitoring End Time:	13:45
Date:	9/3/2008		
Weather:	Sunny, 80°		

INSTRUMENTATION INFORMATION				
Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?
PID (ppm)	Thermo Env. Instruments, Inc	580B	100 ppm Isobutylene	Yes
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading
Hot Wire Thermo-Anemometer (feet per minute)	Extech Instruments	407123	N/A	Zeroed before each reading

FIELD MEASUREMENTS / OBSERVATIONS						
System Status/Configuration		Pressure/VOC Measurements			System Flow Rate Data	
		Monitoring Point	Pressure (in. H <sub>2</sub> O)	VOC (ppm)	Thermo Anenometer Flow Velocity (feet per minute)	Estimated System Flowrate (CFM):
Fenced Enclosure Secure?	Yes	West Header	-3.74	22.7	4719	404
Blower On?	Yes	Center Header	-3.74	38.5		
Condensate Accumulated?	No	East Header	-1.76	51.1		
Condensate Drained?	N/A	North Header	-3.88	274		
Lead Carbon Unit?	A	South Header	-3.89	145.7		
Secondary Carbon Unit?	C	Combined System Influent	-5.05	52.3		
Polish Carbon Unit?	B	Blower Effluent	53.5	N/A		
		Lead Carbon Effluent	40.8	69.1		
		Secondary Carbon Effluent	16.1	7.9		
		System Effluent	N/A	1.1		
		Blower Filter Inlet	-21			
		Blower Filter Outlet	-20			

## COMMENTS

Ambient air = 0 ppm VOCs  
 CFM = cubic feet per minute  
 in. H<sub>2</sub>O = inches of water column  
 N/A = Not Applicable  
 PID = photoionization detector  
 ppm = parts per million  
 VOC = volatile organic compound



## SSDS and SVE Inspection Log for 50 Tufts Street

GENERAL MONITORING INFORMATION			
GEI Field Representative(s):	S. Chervincky	Monitoring Start Time:	9:30
		Monitoring End Time:	12:00
Date:	9/9/2008		
Weather:	Hazy, 70°		

INSTRUMENTATION INFORMATION				
Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?
PID (ppm)	ION Science L.L.C.	PhoCheck 5000	100 ppm Isobutylene	Yes
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading
Hot Wire Thermo-Anemometer (feet per minute)	Extech Instruments	407123	N/A	Zeroed before each reading

FIELD MEASUREMENTS / OBSERVATIONS							
System Status/Configuration			Pressure/VOC Measurements			System Flow Rate Data	
			Monitoring Point	Pressure (in. H <sub>2</sub> O)	VOC (ppm)	Thermo Anenometer Flow Velocity (feet per minute)	Estimated System Flowrate (CFM):
Fenced Enclosure Secure?	Yes		West Header	-3.92	10.4	4505	385
Blower On?	Yes		Center Header	-3.89	21.4		
Condensate Accumulated?	No		East Header	-1.89	35.5		
Condensate Drained?	N/A		North Header	-4.02	558.0		
Lead Carbon Unit?	A		South Header	-4.05	196.0		
Secondary Carbon Unit?	C		Combined System Influent	-5.24	33.6		
Polish Carbon Unit?	B		Blower Effluent	54.0	N/A		
			Lead Carbon Effluent	41.2	37.2		
		Secondary Carbon Effluent	15.9	8.5			
		System Effluent	N/A	0.0			
		Blower Filter Inlet	-21				
		Blower Filter Outlet	-20				

### COMMENTS

Ambient air = 0 ppm VOCs  
 CFM = cubic feet per minute  
 in. H<sub>2</sub>O = inches of water column  
 N/A = Not Applicable  
 PID = photoionization detector  
 ppm = parts per million  
 VOC = volatile organic compound

## SSDS and SVE Inspection Log for 50 Tufts Street

GENERAL MONITORING INFORMATION			
GEI Field Representative(s):	S. Chervincky	Monitoring Start Time:	12:30
		Monitoring End Time:	13:30
Date:	9/24/2008		
Weather:	Sunny, 75°		

INSTRUMENTATION INFORMATION				
Instrument	Manufacturer	Model	Calibrated To:	Successful Calibration?
PID (ppm)	ION Science L.L.C.	PhoCheck 5000	100 ppm Isobutylene	Yes
Manometer (in. H <sub>2</sub> O)	Dwyer	Mark III-475-0 Series	N/A	Zeroed before each reading
Hot Wire Thermo-Anemometer (feet per minute)	Extech Instruments	407123	N/A	Zeroed before each reading

FIELD MEASUREMENTS / OBSERVATIONS						
System Status/Configuration		Pressure/VOC Measurements			System Flow Rate Data	
		Monitoring Point	Pressure (in. H <sub>2</sub> O)	VOC (ppm)	Thermo Anenometer Flow Velocity (feet per minute)	Estimated System Flowrate (CFM):
Fenced Enclosure Secure?	Yes	West Header	-3.75	9.95	4080	349
Blower On?	Yes	Center Header	-3.78	18.4		
Condensate Accumulated?	No	East Header	-1.71	21.2		
Condensate Drained?	N/A	North Header	-3.96	207		
Lead Carbon Unit?	A	South Header	-3.94	133		
Secondary Carbon Unit?	C	Combined System Influent	-5.05	22.7		
Polish Carbon Unit?	B	Blower Effluent	56.5	N/A		
		Lead Carbon Effluent	43.2	20.7		
		Secondary Carbon Effluent	16.5	6.15		
		System Effluent	N/A	0.0		
		Blower Filter Inlet	-21			
		Blower Filter Outlet	-20			

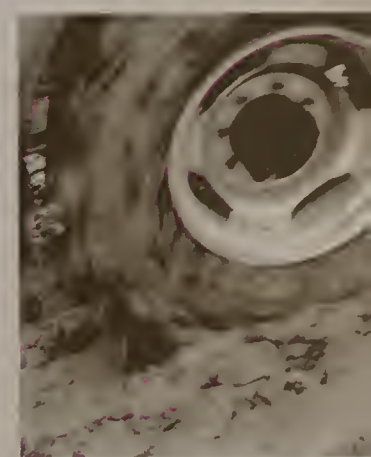
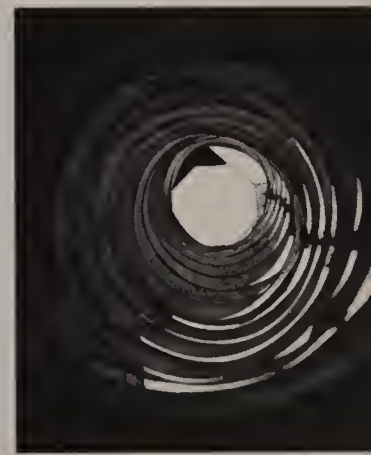
### COMMENTS

Ambient air = 0 ppm VOCs  
 CFM = cubic feet per minute  
 in. H<sub>2</sub>O = inches of water column  
 N/A = Not Applicable  
 PID = photoionization detector  
 ppm = parts per million  
 VOC = volatile organic compound





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## Appendix M

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### 50 Tufts Street – Indoor/Outdoor Air Sampling Checklists and Photo Logs





## Indoor Air Sampling Checklist

Sampling Location:  
**50 Tufts Street**

Sample ID: **045162-50Tufts-NP**

Date: **01-May-08** Sample Type: **Outdoor**  
Sampling Personnel: **C. Malagrida** Analysis Method: **TO-15**  
Summa Canister ID: **M153** Sampling Start Time: **4:42 AM**  
Flow Regulator ID: **MC104** Sampling Finish Time: **8:45 AM**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>4</b>

Environmental Conditions (Outside)	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>38.4</b>	<b>50.3</b>
Barometric Pressure (in. Hg):	<b>30.08</b>	<b>30.12</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>E</b>
General Weather Conditions:	<b>Clear</b>	<b>Sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>NA</b>	<b>NA</b>
Barometric Pressure (in. Hg):	<b>NA</b>	<b>NA</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were occupants in the building during sampling? **No**  
If yes, provide detail:

Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

**NA = Not Applicable**

Air intake at **3' 8"** above the floor.

NM=Not Measured



**GEI**

## Indoor Air Sampling Checklist

Sampling Location:  
**50 Tufts Street**Sample ID: **045162-50Tufts-NO**

Date:	<b>01-May-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>C. Malagrida</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M122</b>	Sampling Start Time:	<b>4:45 AM</b>
Flow Regulator ID:	<b>MC137</b>	Sampling Finish Time:	<b>8:48 AM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>4.5</b>

Environmental Conditions (Outside)	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>38.4</b>	<b>50.3</b>
Barometric Pressure (in. Hg):	<b>30.08</b>	<b>30.12</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>E</b>
General Weather Conditions:	<b>Clear</b>	<b>Sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>52.1</b>	<b>54.8</b>
Barometric Pressure (in. Hg):	<b>30.08</b>	<b>30.13</b>

Did Summa Canister go to ambient pressure? **No**PID readings at sample location (ppb): **16**Photographs taken before sampling by: **S. Slater**Was the building aired out prior to sample collection? **No**Windows open? **No** Ventilation fans? **No**Was there significant precipitation within 12 hours of (or during) the sampling event? **Yes**Were occupants in the building during sampling? **No**  
If yes, provide detail:Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 8"** above the floor.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**50 Tufts Street**

Sample ID: **045162-50Tufts-SO**

Date: **01-May-08** Sample Type: **Indoor**  
Sampling Personel: **C. Malagrida** Analysis Method: **TO-15**  
Summa Canister ID: **M033** Sampling Start Time: **4:48 AM**  
Flow Regulator ID: **MC133** Sampling Finish Time: **8:50 AM**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>4</b>

Environmental Conditions (Outside)	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>38.4</b>	<b>50.3</b>
Barometric Pressure (in. Hg):	<b>30.08</b>	<b>30.12</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>E</b>
General Weather Conditions:	<b>Clear</b>	<b>Sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>54.1</b>	<b>54.5</b>
Barometric Pressure (in. Hg):	<b>30.09</b>	<b>30.12</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **81**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were occupants in the building during sampling? **No**  
If yes, provide detail:

Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 8"** above the floor.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**50 Tufts Street**

Sample ID: **045162-50Tufts-NW**

Date:	<b>01-May-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personel:	<b>C. Malagrida</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M220</b>	Sampling Start Time:	<b>4:51 AM</b>
Flow Regulator ID:	<b>MC129</b>	Sampling Finish Time:	<b>8:51 AM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5</b>

Environmental Conditions (Outside)	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>38.4</b>	<b>50.3</b>
Barometric Pressure (in. Hg):	<b>30.08</b>	<b>30.12</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>E</b>
General Weather Conditions:	<b>Clear</b>	<b>Sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>52.8</b>	<b>55.4</b>
Barometric Pressure (in. Hg):	<b>30.09</b>	<b>30.12</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **138**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were occupants in the building during sampling? **No**  
If yes, provide detail:

Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 8"** above the floor.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**50 Tufts Street**

Sample ID: **045162-50Tufts-NC**

Date: **01-May-08** Sample Type: **Indoor**  
Sampling Personnel: **S. Slater** Analysis Method: **TO-15**  
Summa Canister ID: **M225** Sampling Start Time: **4:53 AM**  
Flow Regulator ID: **MC136** Sampling Finish Time: **8:53 AM**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>5</b>

Environmental Conditions (Outside)	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>38.4</b>	<b>50.3</b>
Barometric Pressure (in. Hg):	<b>30.08</b>	<b>30.12</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>E</b>
General Weather Conditions:	<b>Clear</b>	<b>Sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>51.8</b>	<b>51.6</b>
Barometric Pressure (in. Hg):	<b>30.09</b>	<b>30.12</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **140**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were occupants in the building during sampling? **No**  
If yes, provide detail:

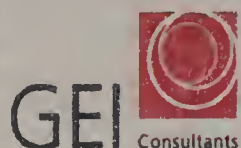
Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 8"** above the floor.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**50 Tufts Street**

Sample ID: **045162-50Tufts-SC1**

Date:	<b>01-May-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M001</b>	Sampling Start Time:	<b>4:59 AM</b>
Flow Regulator ID:	<b>MC128</b>	Sampling Finish Time:	<b>9:06 AM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5</b>

Environmental Conditions (Outside)	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>38.4</b>	<b>50.3</b>
Barometric Pressure (in. Hg):	<b>30.08</b>	<b>30.12</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>E</b>
General Weather Conditions:	<b>Clear</b>	<b>Sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>49.8</b>	<b>51.6</b>
Barometric Pressure (in. Hg):	<b>30.09</b>	<b>30.12</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **140**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were occupants in the building during sampling? **No**  
If yes, provide detail:

Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 8"** above the floor.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**50 Tufts Street**

Sample ID: **045162-50Tufts-SC2**

Date:	<b>01-May-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>C. Malagrida</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M101</b>	Sampling Start Time:	<b>4:59 AM</b>
Flow Regulator ID:	<b>MC142</b>	Sampling Finish Time:	<b>8:54 AM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5</b>

Environmental Conditions (Outside)	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>38.4</b>	<b>50.3</b>
Barometric Pressure (in. Hg):	<b>30.08</b>	<b>30.12</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>E</b>
General Weather Conditions:	<b>Clear</b>	<b>Sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>49.8</b>	<b>50.9</b>
Barometric Pressure (in. Hg):	<b>30.09</b>	<b>30.12</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **140**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No**      Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were occupants in the building during sampling? **No**  
If yes, provide detail:

Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 8"** above the floor.

NM=Not Measured



## Indoor Air Sampling Checklist

Sampling Location:  
**50 Tufts Street**

Sample ID: **045162-50Tufts-GA**

Date:	<b>01-May-08</b>	Sample Type:	<b>Indoor</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15</b>
Summa Canister ID:	<b>M244</b>	Sampling Start Time:	<b>5:02 AM</b>
Flow Regulator ID:	<b>MC127</b>	Sampling Finish Time:	<b>9:07 AM</b>

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>5</b>

Environmental Conditions (Outside)	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>38.4</b>	<b>50.3</b>
Barometric Pressure (in. Hg):	<b>30.08</b>	<b>30.12</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>E</b>
General Weather Conditions:	<b>Clear</b>	<b>Sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>49.2</b>	<b>52.3</b>
Barometric Pressure (in. Hg):	<b>30.09</b>	<b>30.12</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **15**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were occupants in the building during sampling? **No**  
If yes, provide detail:

Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

Air intake at **3' 8"** above the floor.

NM=Not Measured





## Indoor Air Sampling Checklist

Sampling Location:  
**50 Tufts Street**

Sample ID: **045162-50Tufts-SP**

Date: **01-May-08** Sample Type: **Outdoor**  
Sampling Personnel: **S. Slater** Analysis Method: **TO-15**  
Summa Canister ID: **M076** Sampling Start Time: **5:06 AM**  
Flow Regulator ID: **MC121** Sampling Finish Time: **9:09 AM**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5</b>

Environmental Conditions (Outside)	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>38.4</b>	<b>50.3</b>
Barometric Pressure (in. Hg):	<b>30.08</b>	<b>30.12</b>
Prevailing Wind Direction:	<b>Calm</b>	<b>E</b>
General Weather Conditions:	<b>Clear</b>	<b>Sunny</b>

Environmental Conditions (Inside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>NA</b>	<b>NA</b>
Barometric Pressure (in. Hg):	<b>NA</b>	<b>NA</b>

Did Summa Canister go to ambient pressure? **No**

PID readings at sample location (ppb): **0**

Photographs taken before sampling by: **S. Slater**

Was the building aired out prior to sample collection? **No**

Windows open? **No** Ventilation fans? **No**

Was there significant precipitation within 12 hours of (or during) the sampling event? **No**

Were occupants in the building during sampling? **No**  
If yes, provide detail:

Did any occupants NOT follow instructions? **No**  
If yes, describe:

Provide any additional information that may be pertinent to the sampling event and may assist in the data interpretation process.

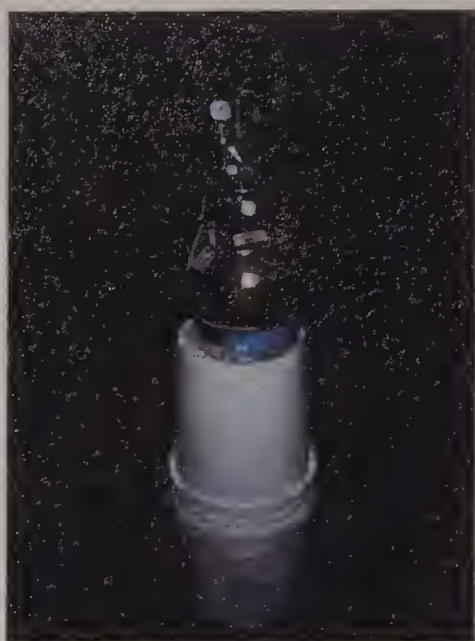
**NA = Not Applicable**

Air intake at **3' 8"** above the floor.

NM=Not Measured



Air Sampling: 50 Tufts Street (May 1, 2008)



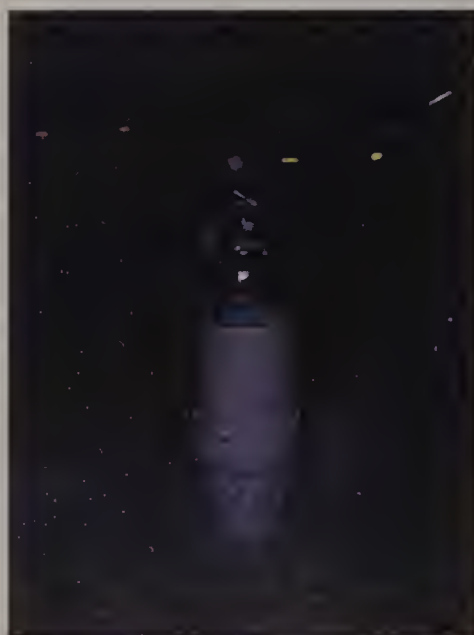
045162-50Tufts-NP



045162-50 Tufts-NO



045162-50Tufts-SO



045162-50Tufts-NW



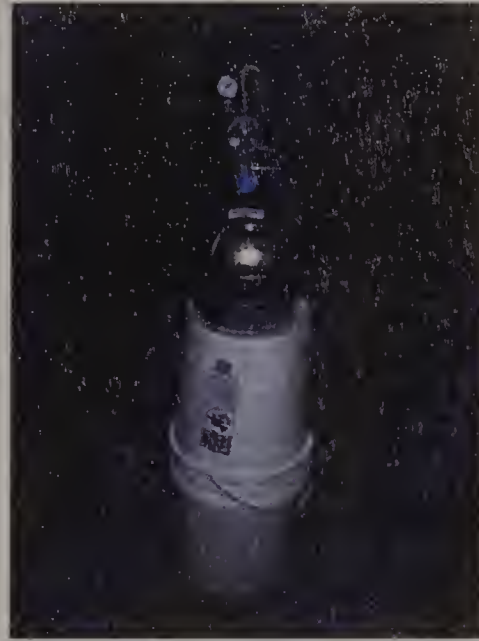
045162-50Tufts-NC



045162-50Tufts-SC 1 & SC2



045162-50Tufts-GA

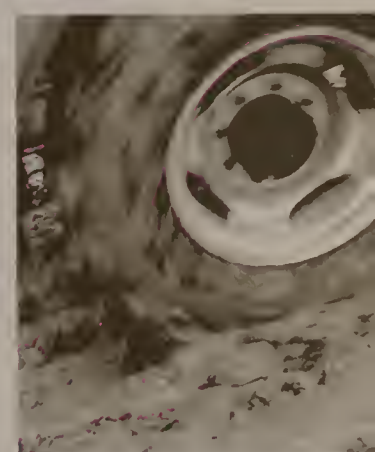
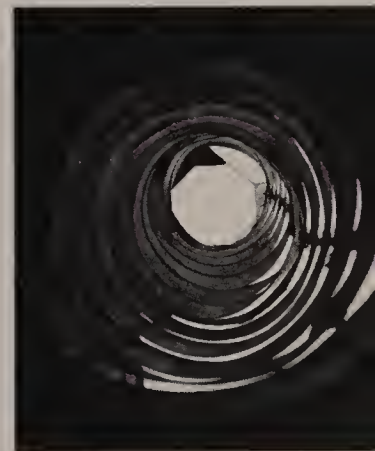


045162-50Tufts-SP





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## Appendix N

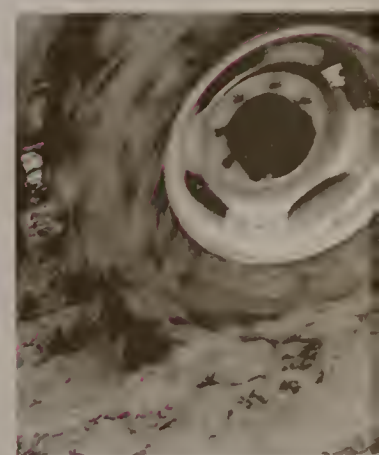
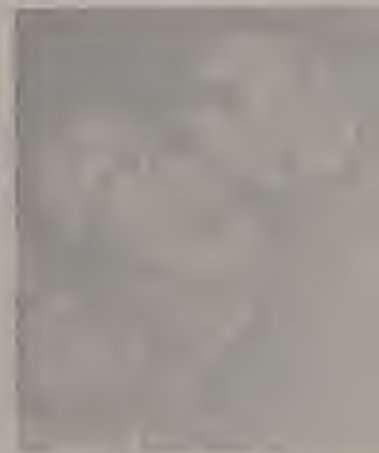
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**50 Tufts Street – Indoor/Outdoor Sampling Laboratory Data  
Reports and Summa Canister Certifications (On enclosed CD)**





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Environmental and  
Water Resources  
Engineering







## Appendix O

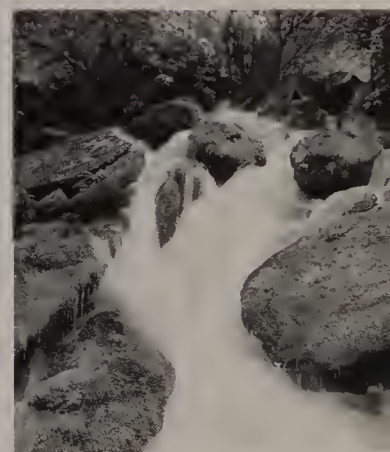
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**Subsurface Investigations – Soil Vapor Sampling Laboratory Data  
Reports and Summa Canister Certifications (On enclosed CD)**





Geotechnical  
Environmental  
Water Resources  
Ecological







## Appendix P

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### Subsurface Investigations – Soil Vapor Sampling Checklists





## Soil Vapor Sampling Checklist

Sampling Location:  
**MW115R**

Sample ID: **045162-MW115R-SG**

Date:	<b>14-Apr-08</b>	Sample Type:	<b>Summa</b>
Sampling Personnel:	<b>C. Malagrida</b>	Analysis Method:	<b>TO-15-Summa</b>
Summa Canister ID:	<b>M154</b>	Sampling Start Time:	<b>1:50 PM</b>
Flow Regulator ID:	<b>MC073</b>	Sampling Finish Time:	<b>2:50 PM</b>

Did Summa Canister go to ambient pressure? **No**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>50.0</b>	<b>50.0</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.82</b>
Prevailing Wind Direction:	<b>NW</b>	<b>NW</b>
General Weather Conditions:	<b>Partly sunny</b>	<b>Partly sunny</b>

Vacuum prior to sampling (in w.c.): **0**

Ambient air concentration (ppb): **0**

Soil gas concentration prior to sampling (ppb): **0**

Vapor Point purged for **5 minutes** with an air pump prior to sampling.

Comments:

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Soil Vapor Sampling Checklist

Sampling Location:  
**MW201**

Sample ID: **045162-MW201-SG**

Date:	<b>14-Apr-08</b>	Sample Type:	<b>Summa</b>
Sampling Personnel:	<b>S. Slater</b>	Analysis Method:	<b>TO-15-Summa</b>
Summa Canister ID:	<b>M133</b>	Sampling Start Time:	<b>8:57 AM</b>
Flow Regulator ID:	<b>MC041</b>	Sampling Finish Time:	<b>10:01 AM</b>

Did Summa Canister go to ambient pressure? **No**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>31</b>	<b>3.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>43.8</b>	<b>48.7</b>
Barometric Pressure (in. Hg):	<b>29.81</b>	<b>29.82</b>
Prevailing Wind Direction:	<b>NW</b>	<b>NW</b>
General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>

Vacuum prior to sampling (in w.c.): **0**

Ambient air concentration (ppb): **0**

Soil gas concentration prior to sampling (ppb): **0**

Vapor Point purged for **5 minutes** with an air pump prior to sampling.

Comments:

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Soil Vapor Sampling Checklist

Sampling Location:  
**MW118S**

Sample ID: **045162-MW118S-SG**

Date:	<b>14-Apr-08</b>	Sample Type:	<b>Summa</b>	
Sampling Personnel:	<b>S. Slater</b>	<b>V. Vlahovich</b>	Analysis Method:	<b>TO-15-Summa</b>
Summa Canister ID:	<b>M232</b>	Sampling Start Time:	<b>12:08 PM</b>	
Flow Regulator ID:	<b>MC002</b>	Sampling Finish Time:	<b>1:12 PM</b>	

Did Summa Canister go to ambient pressure? **No**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>4</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>48.7</b>	<b>50.0</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.82</b>
Prevailing Wind Direction:	<b>NW</b>	<b>NW</b>
General Weather Conditions:	<b>Sunny</b>	<b>Partly sunny</b>

Vacuum prior to sampling (in w.c.): **0**

Ambient air concentration (ppb): **0**

Soil gas concentration prior to sampling (ppb): **0**

Vapor Point purged for **5 minutes** with an air pump prior to sampling.

Comments:

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Soil Vapor Sampling Checklist

Sampling Location:  
**MW117S**

Sample ID: 045162-MW117S-SG

Date:	<b>14-Apr-08</b>	Sample Type:	<b>Summa</b>	
Sampling Personnel:	<b>S. Slater</b>	<b>V. Vlahovich</b>	Analysis Method:	<b>TO-15-Summa</b>
Summa Canister ID:	<b>M032</b>	Sampling Start Time:	<b>1:55 PM</b>	
Flow Regulator ID:	<b>MC033</b>	Sampling Finish Time:	<b>2:55 PM</b>	

Did Summa Canister go to ambient pressure? **No**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29.5</b>	<b>3.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>50.0</b>	<b>50.0</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.82</b>
Prevailing Wind Direction:	<b>NW</b>	<b>NW</b>
General Weather Conditions:	<b>Partly sunny</b>	<b>Partly sunny</b>

Vacuum prior to sampling (in w.c.): **0**

Ambient air concentration (ppb): **0 - 14**

Soil gas concentration prior to sampling (ppb): **33**

Vapor Point purged for **6 minutes** with an air pump prior to sampling.

Comments:

**Diesel bus idling near soil vapor well.**

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

GEI



## Soil Vapor Sampling Checklist

Sampling Location:

MW202

Sample ID: 045162-MW202-SG

Date: 14-Apr-08

Sample Type: Summa

Sampling Personnel: C. Malagrida

Analysis Method: TO-15-Summa

Summa Canister ID: M208

Sampling Start Time: 8:44 AM

Flow Regulator ID: MFC030

Sampling Finish Time: 9:49 AM

Did Summa Canister go to ambient pressure? No

Pressure gauge reading:

Pre-openingPost-collection

Summa Canister Vacuum (in. Hg):

29

3.5

Environmental Conditions (Outside):

Before SamplingAfter Sampling

Temperature (°F):

43.8

48.7

Barometric Pressure (in. Hg):

29.81

29.82

Prevailing Wind Direction:

NW

NW

General Weather Conditions:

Sunny

Sunny

Vacuum prior to sampling (in w.c.):

0

Ambient air concentration (ppb):

0

Soil gas concentration prior to sampling (ppb):

0

Vapor Point purged for 5 minutes with an air pump prior to sampling.

Comments:

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Soil Vapor Sampling Checklist

Sampling Location:  
**MW116**

Sample ID: **045162-MW116-SG-1**

Date: **14-Apr-08** Sample Type: **Summa**  
Sampling Personnel: **S. Slater V. Vlahovich** Analysis Method: **TO-15-Summa**  
Summa Canister ID: **M150** Sampling Start Time: **11:36 AM**  
Flow Regulator ID: **M1087** Sampling Finish Time: **12:12 PM**

Did Summa Canister go to ambient pressure? **No**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>28</b>	<b>1</b>

Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>48.7</b>	<b>48.7</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.82</b>
Prevailing Wind Direction:	<b>NW</b>	<b>NW</b>
General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>

Vacuum prior to sampling (in w.c.): **0**

Ambient air concentration (ppb): **0**

Soil gas concentration prior to sampling (ppb): **0**

Vapor Point purged for **5 minutes** with an air pump prior to sampling.

### Comments:

**Flow controller filled Summa can in 36 minutes. QA/QC personnel were notified and a second sample was collected.**

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Soil Vapor Sampling Checklist

Sampling Location:

**MW122**

Sample ID: 045162-MW122-SG

Date:	<b>14-Apr-08</b>	Sample Type:	<b>Summa</b>
Sampling Personnel:	<b>S. Slater</b>	<b>V. Vlahovich</b>	Analysis Method: <b>TO-15-Summa</b>
Summa Canister ID:	<b>M003</b>	Sampling Start Time:	<b>11:33 AM</b>
Flow Regulator ID:	<b>MC078</b>	Sampling Finish Time:	<b>12:33 PM</b>

Did Summa Canister go to ambient pressure? **No**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>25</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>48.7</b>	<b>48.7</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.82</b>
Prevailing Wind Direction:	<b>NW</b>	<b>NW</b>
General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>

Vacuum prior to sampling (in w.c.): **0**

Ambient air concentration (ppb): **0**

Soil gas concentration prior to sampling (ppb): **0**

Vapor Point purged for **5 minutes** with an air pump prior to sampling.

Comments:

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured

GEI



Consultants

## Soil Vapor Sampling Checklist

Sampling Location:

MW114

Sample ID: 045162-MW114-SG

Date:	14-Apr-08	Sample Type:	Summa
Sampling Personnel:	C. Malagrida	Analysis Method:	TO-15-Summa
Summa Canister ID:	M131	Sampling Start Time:	1:38 PM
Flow Regulator ID:	MC034	Sampling Finish Time:	2:40 PM

Did Summa Canister go to ambient pressure? **No**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	28.5	3
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	50.0	50.0
Barometric Pressure (in. Hg):	29.82	29.82
Prevailing Wind Direction:	NW	NW
General Weather Conditions:	Partly sunny	Partly sunny

Vacuum prior to sampling (in w.c.): 0

Ambient air concentration (ppb): 0

Soil gas concentration prior to sampling (ppb): 0

Vapor Point purged for 5 minutes with an air pump prior to sampling.

Comments:

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Soil Vapor Sampling Checklist

Sampling Location:  
**MW113**

Sample ID: 045162-MW113-SG

Date: **14-Apr-08** Sample Type: **Summa**  
Sampling Personnel: **S. Slater V. Vlahovich** Analysis Method: **TO-15-Summa**  
Summa Canister ID: **M223** Sampling Start Time: **9:30 AM**  
Flow Regulator ID: **MC099** Sampling Finish Time: **10:28 AM**

Did Summa Canister go to ambient pressure? **No**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>28</b>	<b>4.5</b>

Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>43.8</b>	<b>43.8</b>
Barometric Pressure (in. Hg):	<b>29.81</b>	<b>29.81</b>
Prevailing Wind Direction:	<b>NW</b>	<b>NW</b>
General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>

Vacuum prior to sampling (in w.c.): **0**  
Ambient air concentration (ppb): **0**  
Soil gas concentration prior to sampling (ppb): **0**  
Vapor Point purged for **5 minutes** with an air pump prior to sampling.

### Comments:

**Fitting on Summa can was dirty. Small droplets of water were observed in the sampling tube.**

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Soil Vapor Sampling Checklist

Sampling Location:  
**MW112A**

Sample ID: **045162-MW112A-SG**

Date:	<b>14-Apr-08</b>	Sample Type:	<b>Summa</b>
Sampling Personnel:	<b>C. Malagrida</b>	Analysis Method:	<b>TO-15-Summa</b>
Summa Canister ID:	<b>M010</b>	Sampling Start Time:	<b>12:00 PM</b>
Flow Regulator ID:	<b>MCF016</b>	Sampling Finish Time:	<b>1:03 PM</b>

Did Summa Canister go to ambient pressure? **No**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>30</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>48.7</b>	<b>50.0</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.82</b>
Prevailing Wind Direction:	<b>NW</b>	<b>NW</b>
General Weather Conditions:	<b>Sunny</b>	<b>Partly sunny</b>

Vacuum prior to sampling (in w.c.): **0**

Ambient air concentration (ppb): **0**

Soil gas concentration prior to sampling (ppb): **306**

Vapor Point purged for **5 minutes** with an air pump prior to sampling.

Comments:

**Initial Summa can malfunctioned and did not fill. Can was replaced and sample was collected again.**

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Soil Vapor Sampling Checklist

Sampling Location:

MW111

Sample ID: 045162-MW111-SG

Date: **14-Apr-08**

Sample Type: **Summa**

Sampling Personnel: **C. Malagrida**

Analysis Method: **TO-15-Summa**

Summa Canister ID: **M174**

Sampling Start Time: **11:39 AM**

Flow Regulator ID: **MFC039**

Sampling Finish Time: **12:52 PM**

Did Summa Canister go to ambient pressure? **No**

Pressure gauge reading:

Pre-opening

Post-collection

Summa Canister Vacuum (in. Hg):

**30**

**5**

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature (°F):

**48.7**

**48.7**

Barometric Pressure (in. Hg):

**29.82**

**29.82**

Prevailing Wind Direction:

**NW**

**NW**

General Weather Conditions:

**Partly cloudy**

**Sunny**

Vacuum prior to sampling (in w.c.):

**0**

Ambient air concentration (ppb):

**0**

Soil gas concentration prior to sampling (ppb): **Off-Scale**

Vapor Point purged for **5 minutes** with an air pump prior to sampling.

Comments:

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Soil Vapor Sampling Checklist

Sampling Location:

**MW109**

Sample ID: **045162-MW109-SG**

Date: **14-Apr-08**

Sample Type: **Summa**

Sampling Personnel: **C. Malagrida**

Analysis Method: **TO-15-Summa**

Summa Canister ID: **M229**

Sampling Start Time: **11:17 AM**

Flow Regulator ID: **MFC050**

Sampling Finish Time: **12:21 PM**

Did Summa Canister go to ambient pressure? **No**

Pressure gauge reading:

Pre-opening

Post-collection

Summa Canister Vacuum (in. Hg):

**30**

**4**

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature (°F):

**48.7**

**48.7**

Barometric Pressure (in. Hg):

**29.82**

**29.82**

Prevailing Wind Direction:

**NW**

**NW**

General Weather Conditions:

**Partly cloudy**

**Sunny**

Vacuum prior to sampling (in w.c.):

**0**

Ambient air concentration (ppb):

**0**

Soil gas concentration prior to sampling (ppb): **643**

Vapor Point purged for **5 minutes** with an air pump prior to sampling.

Comments:

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Soil Vapor Sampling Checklist

Sampling Location:  
**MW108**

Sample ID: **045162-MW108-SG**

Date:	<b>14-Apr-08</b>	Sample Type:	<b>Summa</b>
Sampling Personnel:	<b>C. Malagrida</b>	Analysis Method:	<b>TO-15-Summa</b>
Summa Canister ID:	<b>M102</b>	Sampling Start Time:	<b>9:50 AM</b>
Flow Regulator ID:	<b>MFC006</b>	Sampling Finish Time:	<b>10:51 AM</b>

Did Summa Canister go to ambient pressure? **No**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>29.0</b>	<b>3.5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>43.8</b>	<b>48.7</b>
Barometric Pressure (in. Hg):	<b>29.81</b>	<b>29.82</b>
Prevailing Wind Direction:	<b>NW</b>	<b>NW</b>
General Weather Conditions:	<b>Sunny</b>	<b>Partly Cloudy</b>

Vacuum prior to sampling (in w.c.): **0**

Ambient air concentration (ppb): **0**

Soil gas concentration prior to sampling (ppb): **0**

Vapor Point purged for **5 minutes** with an air pump prior to sampling.

Comments:

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured





## Soil Vapor Sampling Checklist

Sampling Location:  
**MW107**

Sample ID: **045162-MW107-SG**

Date: **14-Apr-08** Sample Type: **Summa**  
Sampling Personnel: **S. Slater V. Vlahovich** Analysis Method: **TO-15-Summa**  
Summa Canister ID: **M111** Sampling Start Time: **9:12 AM**  
Flow Regulator ID: **MC066** Sampling Finish Time: **10:02 AM**

Did Summa Canister go to ambient pressure? **Yes**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>26</b>	<b>0</b>

Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>43.8</b>	<b>43.8</b>
Barometric Pressure (in. Hg):	<b>29.81</b>	<b>29.81</b>
Prevailing Wind Direction:	<b>NW</b>	<b>NW</b>
General Weather Conditions:	<b>Sunny</b>	<b>Sunny</b>

Vacuum prior to sampling (in w.c.): **0**

Ambient air concentration (ppb): **0**

Soil gas concentration prior to sampling (ppb): **0**

Vapor Point purged for **5 minutes** with an air pump prior to sampling.

Comments:

**Removed water from road box and soil vapor fitting before sampling.**

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Soil Vapor Sampling Checklist

Sampling Location:

**MW106**

Sample ID: 045162-MW106-SG

Date: **14-Apr-08**

Sample Type: **Summa**

Sampling Personnel: **C. Malagrida**

Analysis Method: **TO-15-Summa**

Summa Canister ID: **M219**

Sampling Start Time: **10:00 AM**

Flow Regulator ID: **MC036**

Sampling Finish Time: **10:56 AM**

Did Summa Canister go to ambient pressure? **No**

Pressure gauge reading:

Pre-opening

Post-collection

Summa Canister Vacuum (in. Hg):

**28.5**

**3**

Environmental Conditions (Outside):

Before Sampling

After Sampling

Temperature (°F):

**43.8**

**48.7**

Barometric Pressure (in. Hg):

**29.81**

**29.82**

Prevailing Wind Direction:

**NW**

**NW**

General Weather Conditions:

**Sunny**

**Partly cloudy**

Vacuum prior to sampling (in w.c.):

**0**

Ambient air concentration (ppb):

**0**

Soil gas concentration prior to sampling (ppb):

**0**

Vapor Point purged for **5 minutes** with an air pump prior to sampling.

Comments:

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



## Soil Vapor Sampling Checklist

Sampling Location:  
**MW116**

Sample ID: **045162-MW116-SG-2**

Date: **14-Apr-08** Sample Type: **Summa**  
Sampling Personnel: **S. Slater V. Vlahovich** Analysis Method: **TO-15-Summa**  
Summa Canister ID: **M242** Sampling Start Time: **2:13 PM**  
Flow Regulator ID: **MC139** Sampling Finish Time: **3:14 PM**

Did Summa Canister go to ambient pressure? **No**

Pressure gauge reading:	<u>Pre-opening</u>	<u>Post-collection</u>
Summa Canister Vacuum (in. Hg):	<b>25</b>	<b>5</b>
Environmental Conditions (Outside):	<u>Before Sampling</u>	<u>After Sampling</u>
Temperature (°F):	<b>50.0</b>	<b>50.0</b>
Barometric Pressure (in. Hg):	<b>29.82</b>	<b>29.82</b>
Prevailing Wind Direction:	<b>NW</b>	<b>NW</b>
General Weather Conditions:	<b>Partly sunny</b>	<b>Partly sunny</b>

Vacuum prior to sampling (in w.c.): **0**  
Ambient air concentration (ppb): **0**  
Soil gas concentration prior to sampling (ppb): **1371**  
Vapor Point purged for **5 minutes** with an air pump prior to sampling.

Comments:

\* Estimated reading beyond gauge pressure markings.

NM=Not Measured



Geotechnical  
Environmental  
Water Resources  
Ecological







## Appendix Q

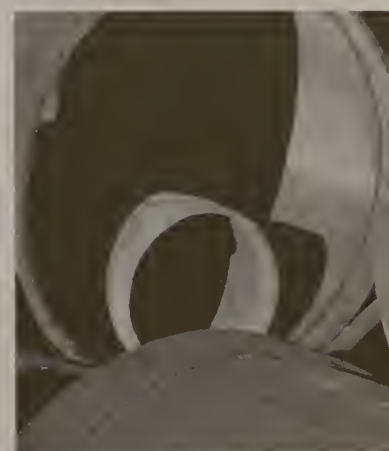
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**Subsurface Investigations – Groundwater Sampling Laboratory  
Data Reports (On enclosed CD)**





Geotechnical  
Environmental  
Water Resources  
Ecological







## Appendix R

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**Subsurface Investigations – Utility Investigation Laboratory Data  
Reports (On enclosed CD)**





Geotechnical  
Environmental and  
Water Resources  
Engineering







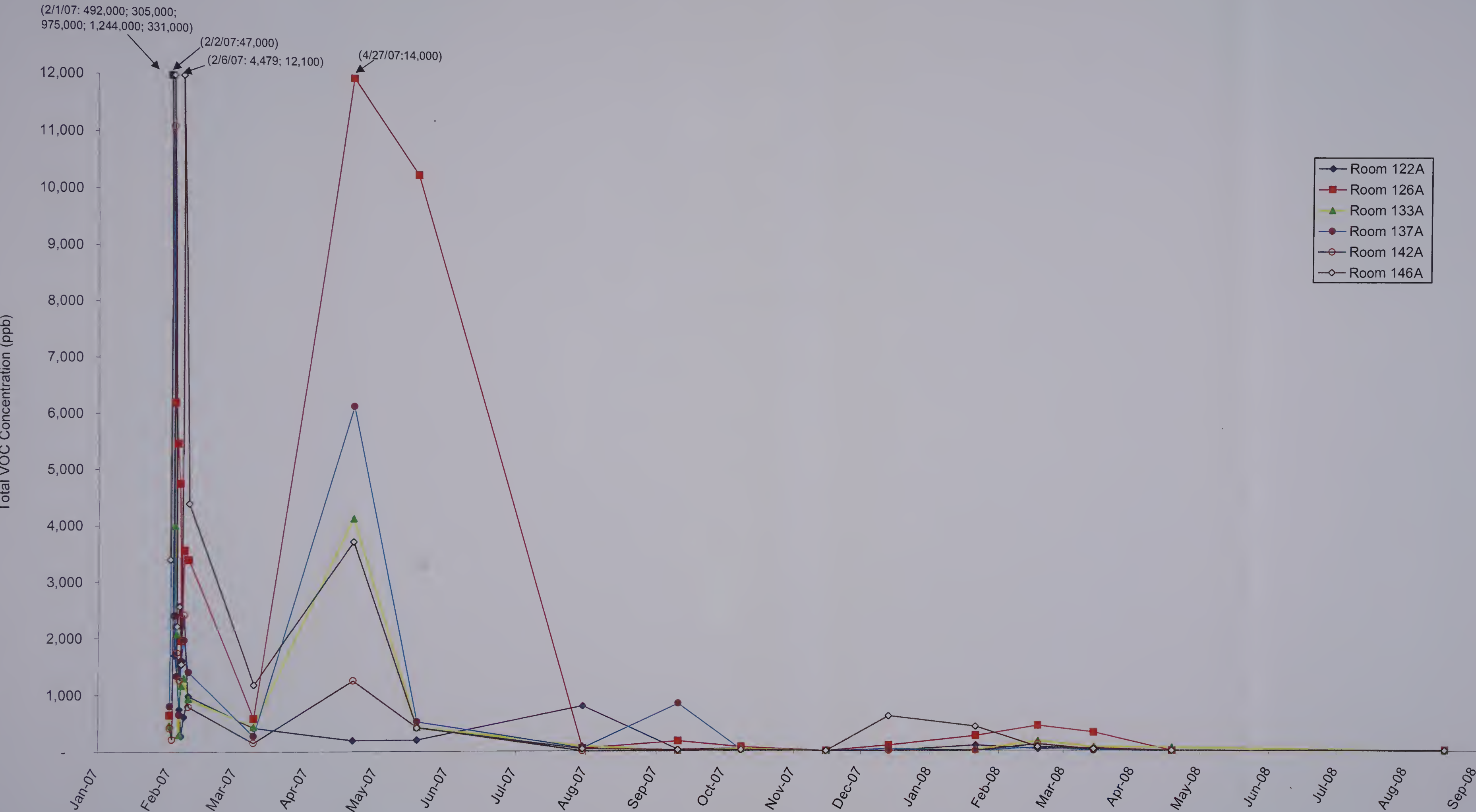
## Appendix S

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### Capuano Center – VOC Graphs



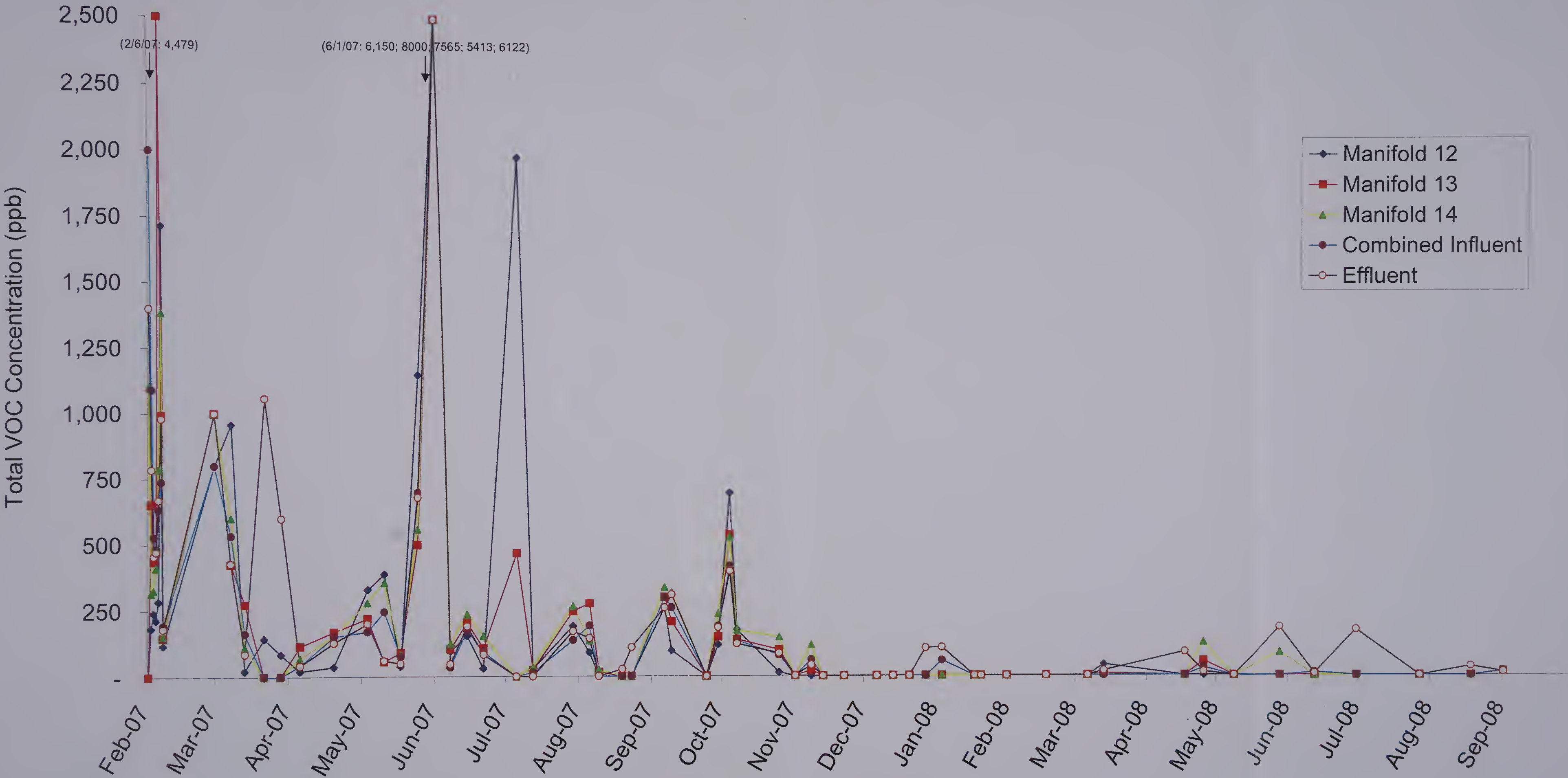
Graph 1  
Sub-Slab PID Monitoring Data: January 31, 2007 - September 30, 2008  
Total VOC Concentrations by PID at Sub-Slab Points in Selected Classrooms  
Capuano Center  
Somerville, Massachusetts







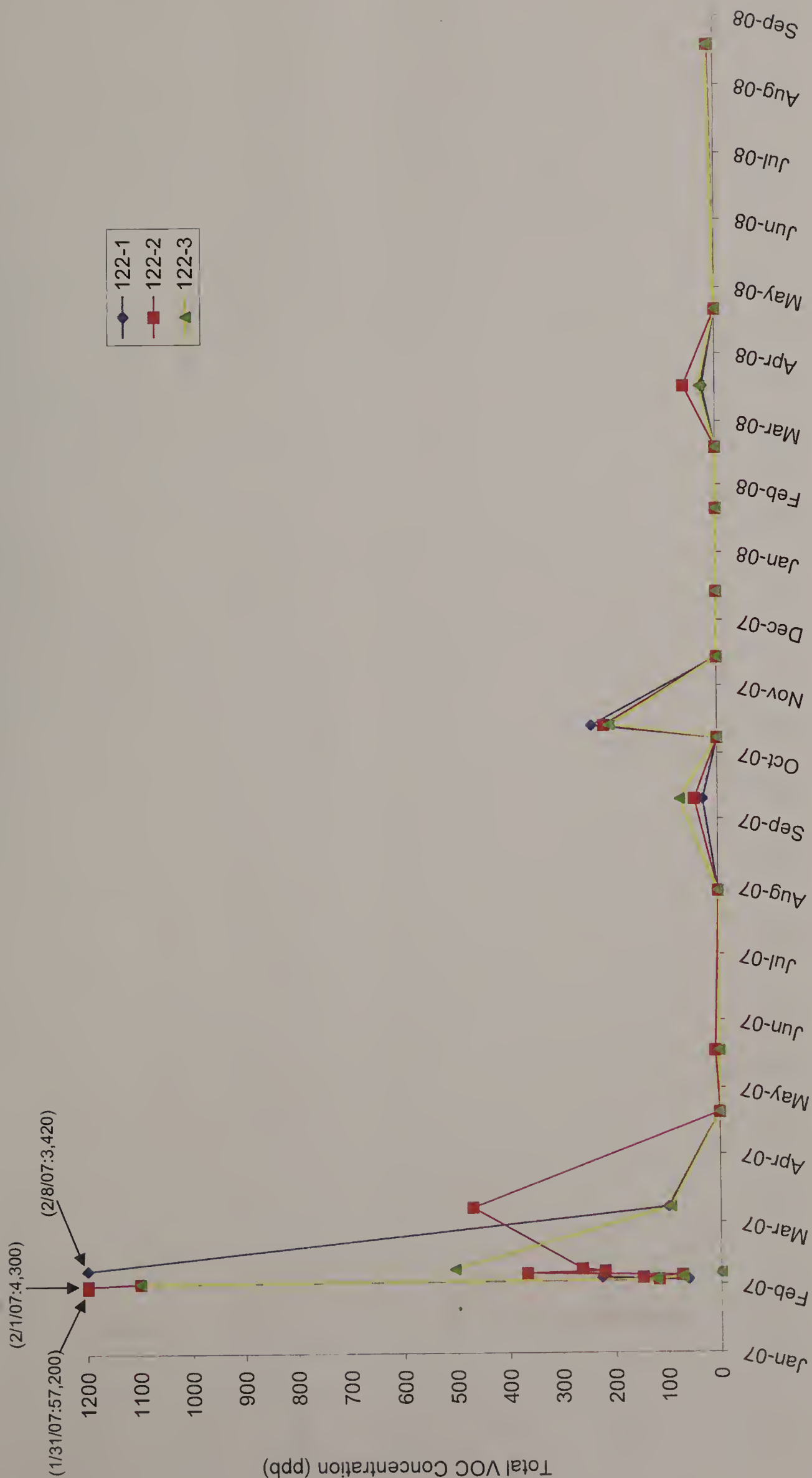
Graph 2  
Sub-Slab PID Monitoring Data: February 1, 2007 - September 30, 2008  
Total VOC Concentrations by PID at Blower Enclosure Monitoring Points  
Capuano Center  
Somerville, Massachusetts





Graph 3

PID Monitoring Data: January 31, 2007 - September 30, 2008  
Total VOC Concentrations by PID at Exterior Monitoring Points - Room 122  
Capuano Center  
Somerville, Massachusetts

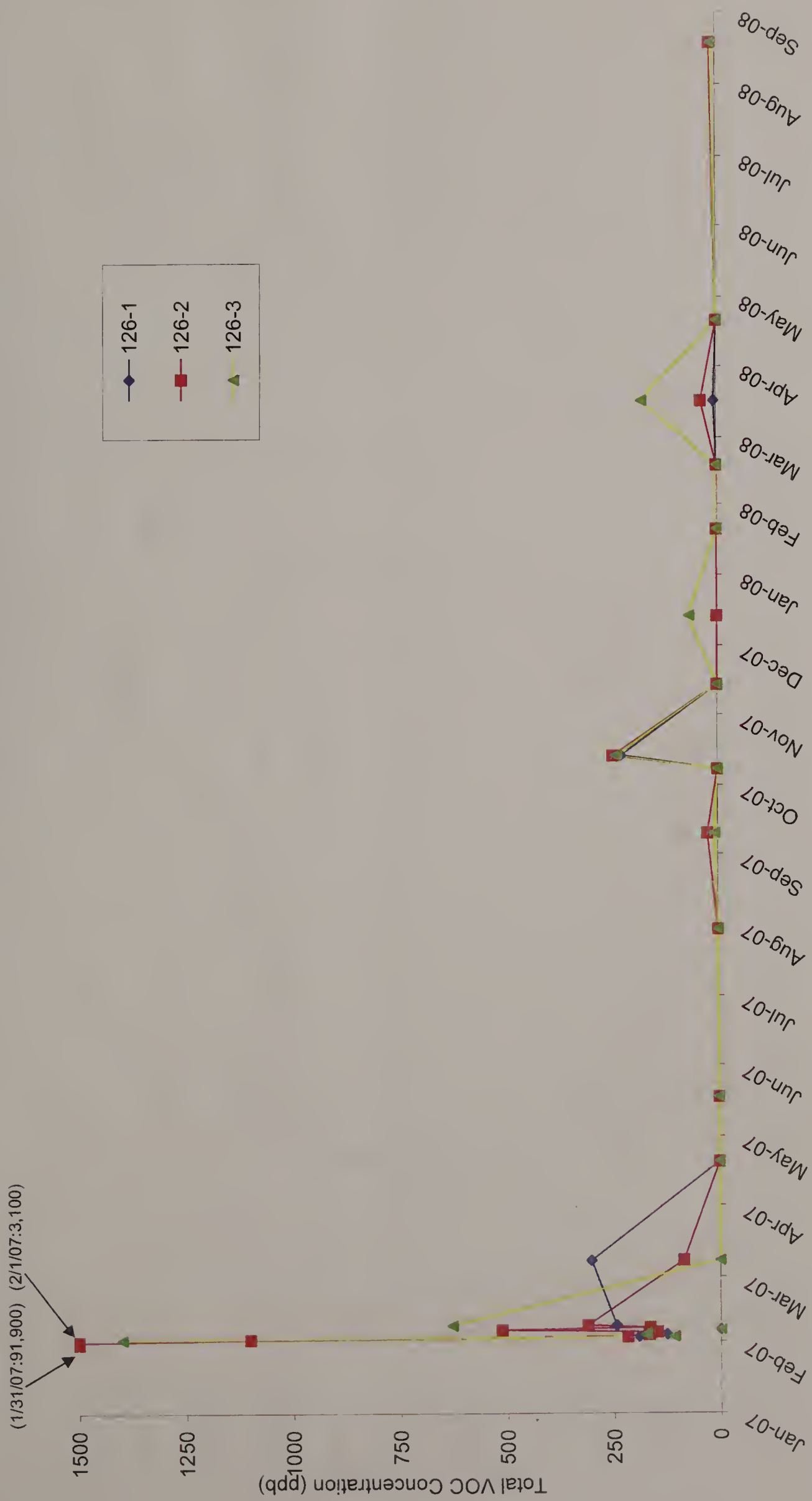






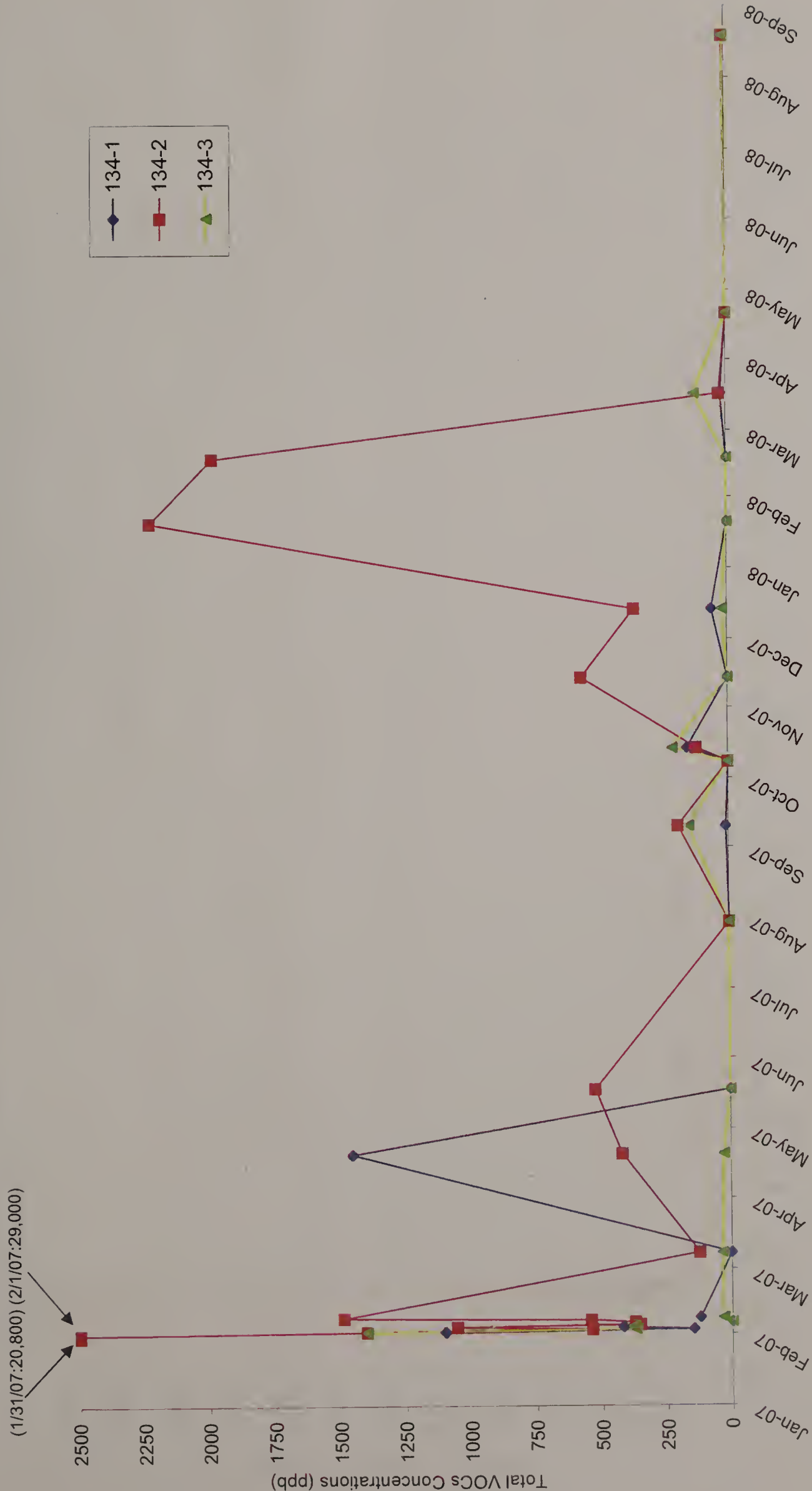
Graph 4

PID Monitoring Data: January 31, 2007 - September 30, 2008  
Total VOC Concentrations by PID at Exterior Monitoring Points - Room 126  
Capuano Center  
Somerville, Massachusetts





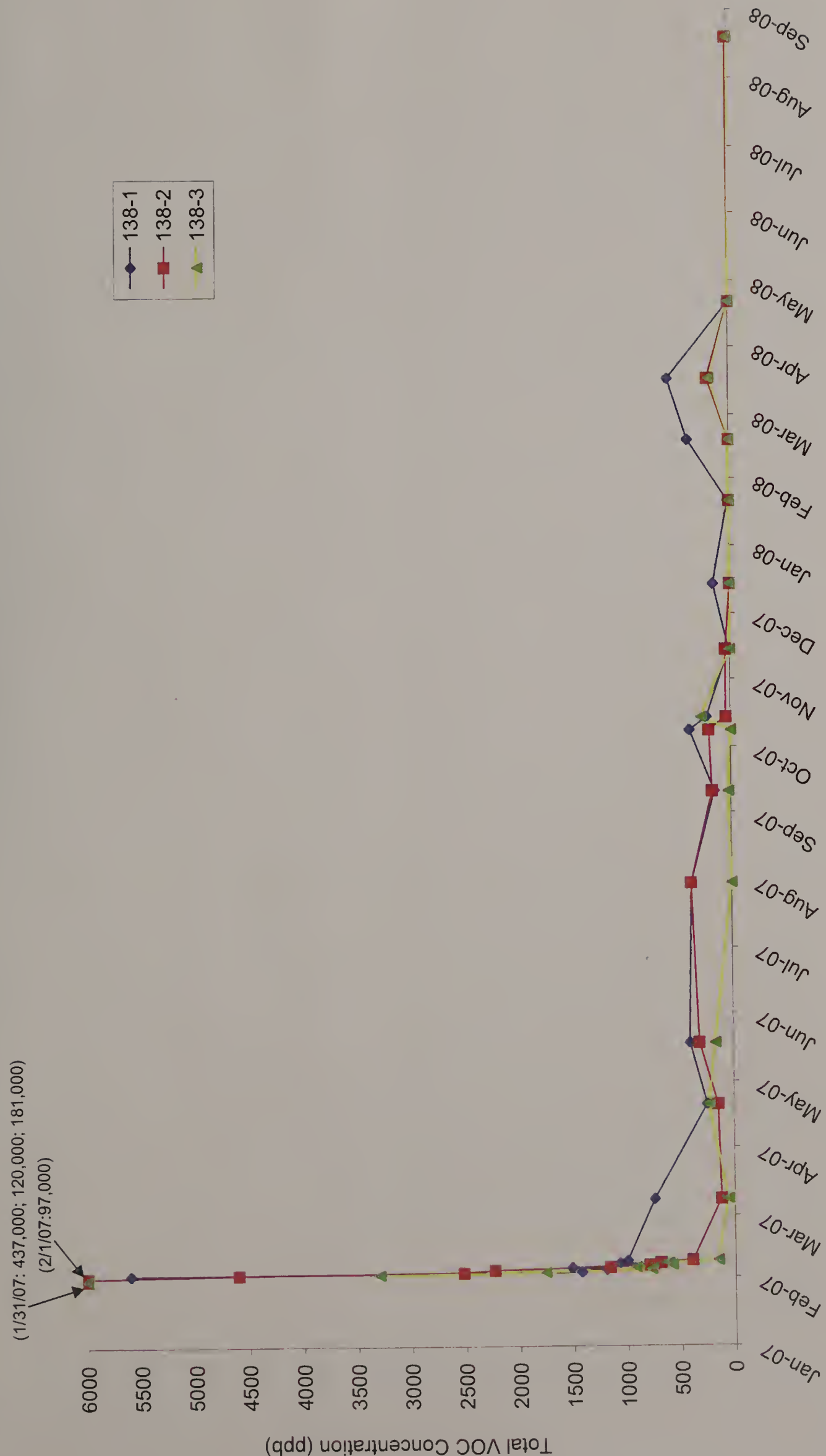
**Graph 5**  
**PID Monitoring Data: January 31, 2007 - September 30, 2008**  
**Total VOC Concentrations by PID at Exterior Monitoring Points - Room 134**  
**Capuano Center**  
**Somerville, Massachusetts**







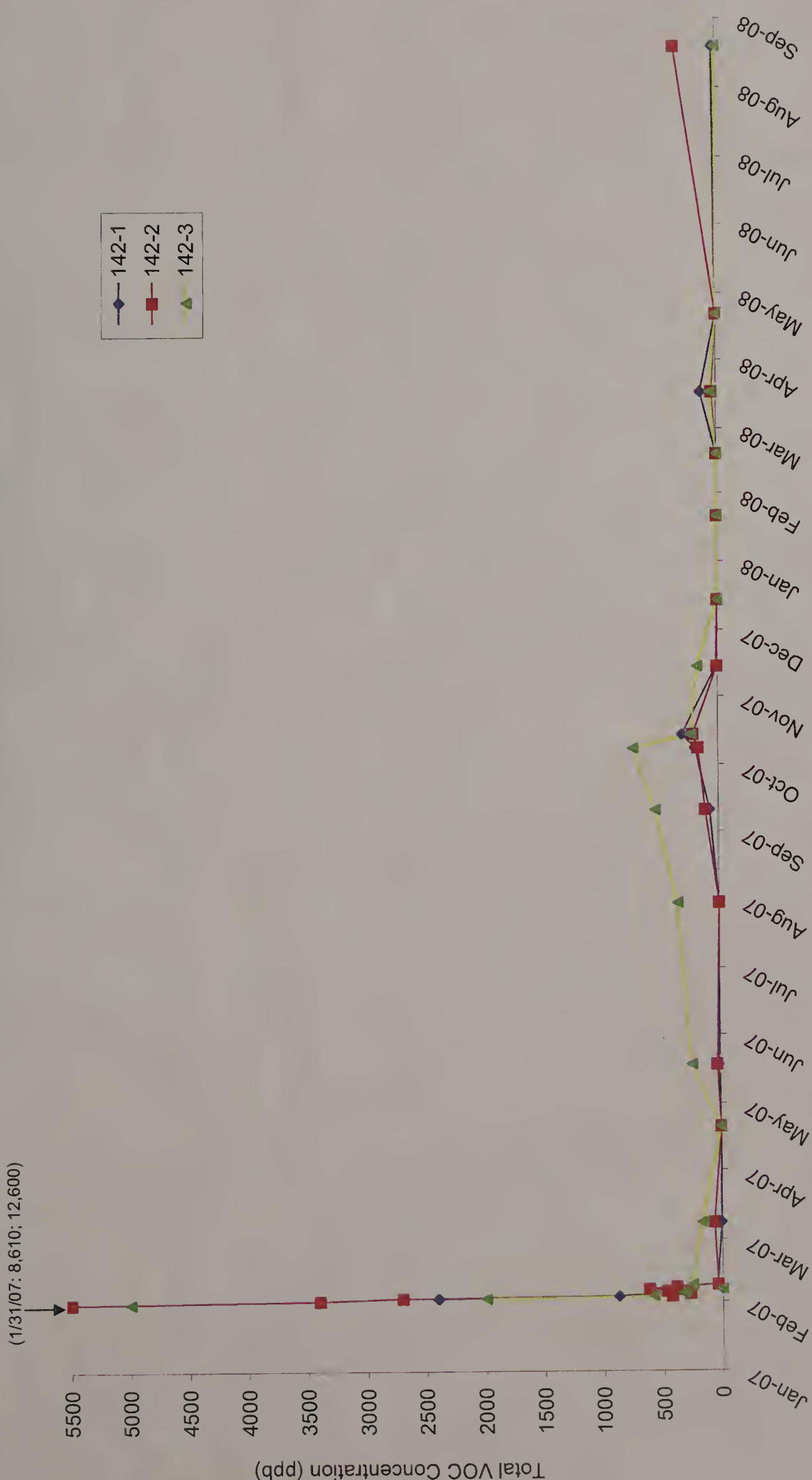
Graph 6  
 PID Monitoring Data: January 31, 2007 - September 30, 2008  
 Total VOC Concentrations by PID at Exterior Monitoring Points - Room 138  
 Capuano Center  
 Somerville, Massachusetts





Graph 7

PID Monitoring Data: January 31, 2007 - September 30, 2008  
Total VOC Concentrations by PID at Exterior Monitoring Points - Room 142  
Capuano Center  
Somerville, Massachusetts

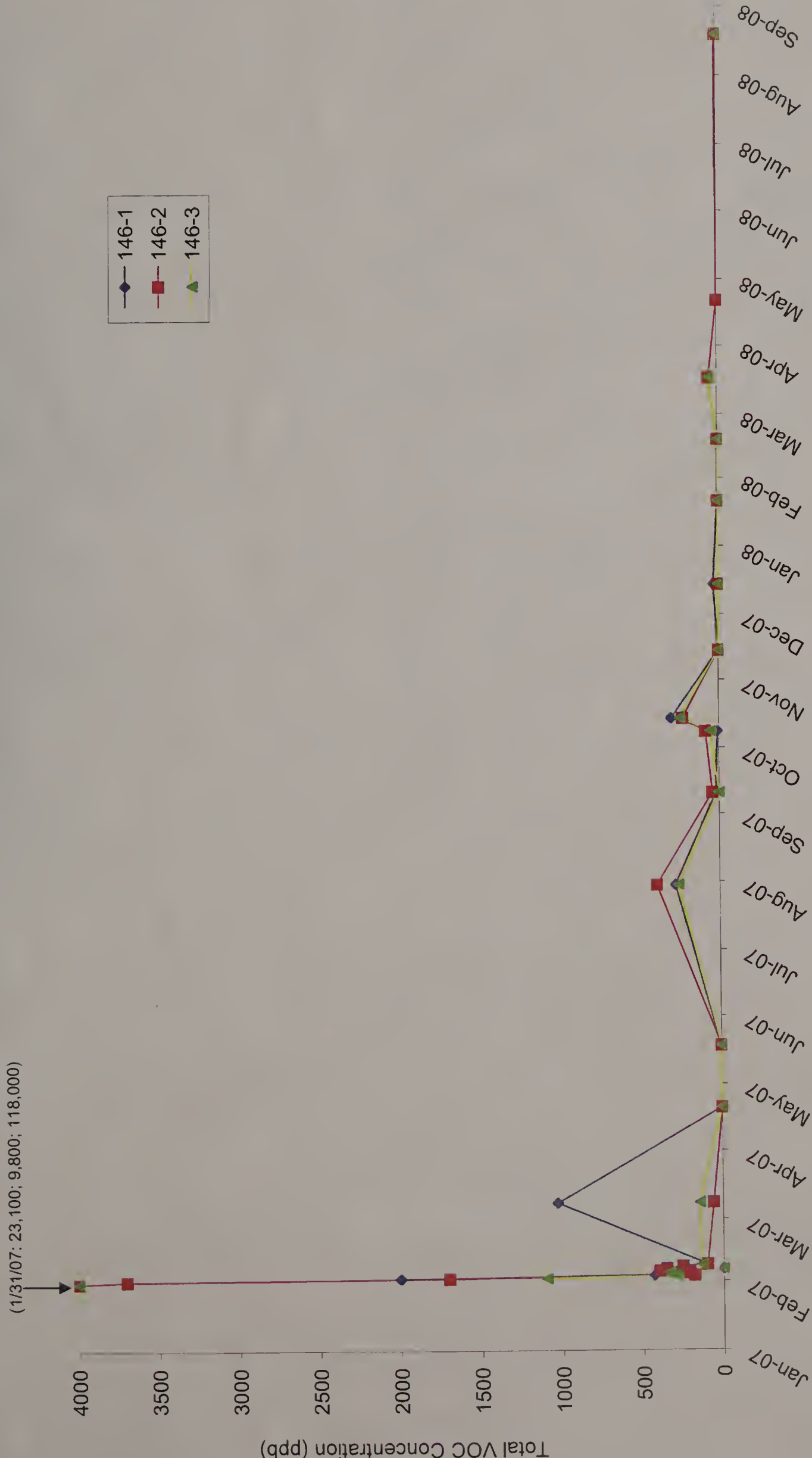






Graph 8

PID Monitoring Data: January 31, 2007 - September 30, 2008  
Total VOC Concentrations by PID at Exterior Monitoring Points - Room 146  
Capuano Center  
Somerville, Massachusetts







Geotechnical  
Environmental  
Water Resources  
Ecological







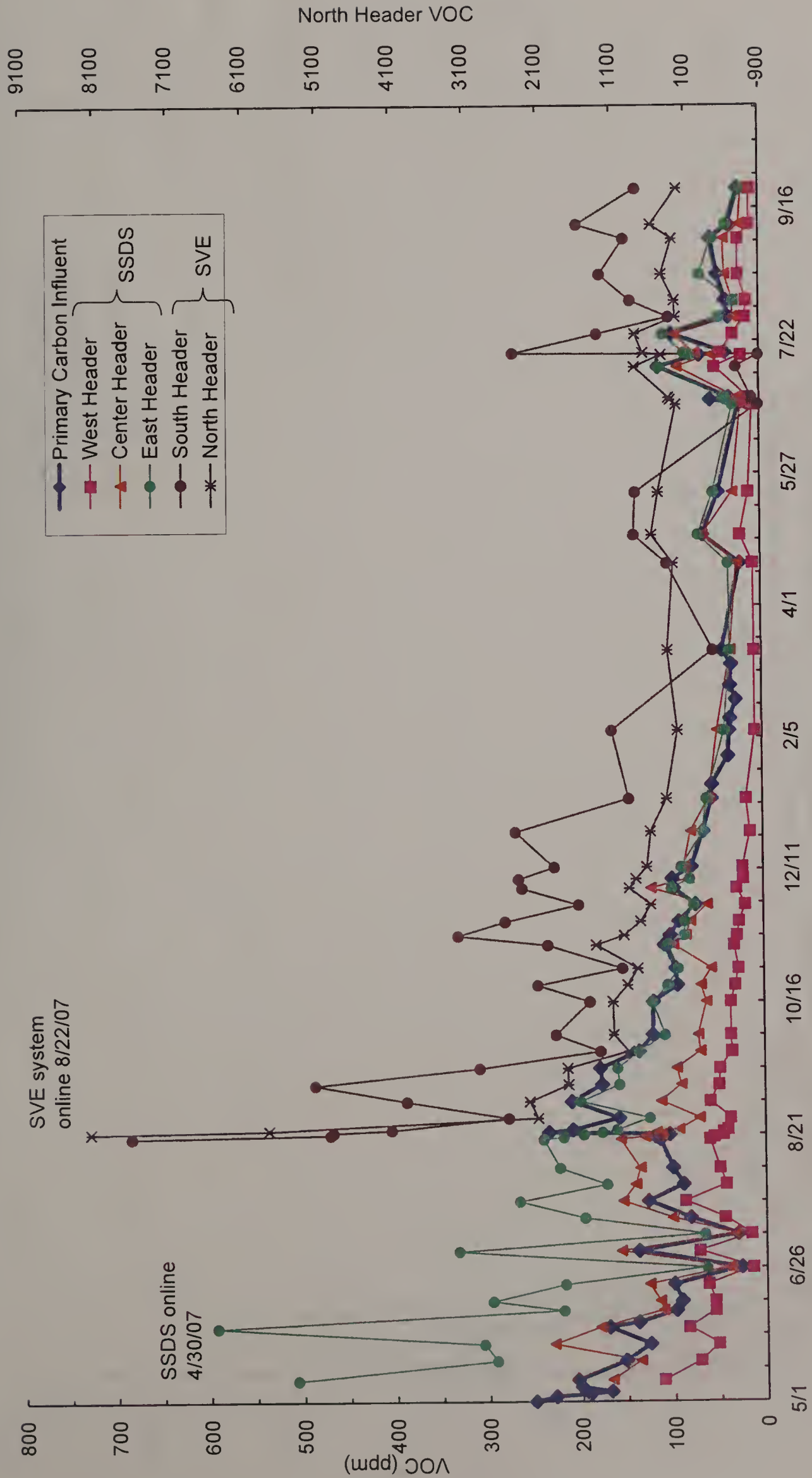
## Appendix T

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### 50 Tufts Street – VOC Graphs



Graph 1  
SSDS and SVE Header Pipe VOC Concentrations 50 Tufts Street  
50 Tufts Street  
Somerville, Massachusetts

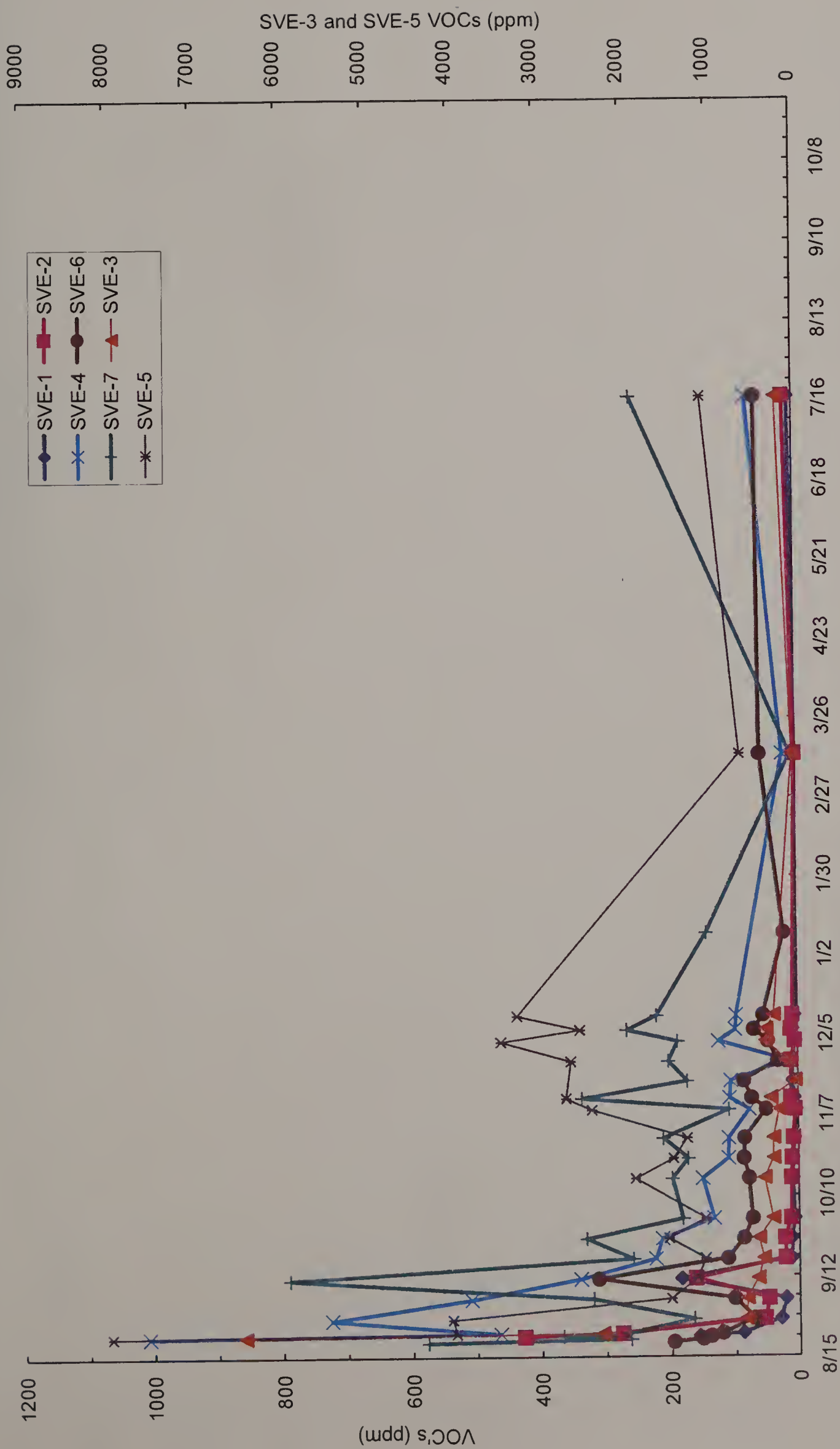


--VOC results on 6/26 and 7/10 using a PID may be biased low due to a low flow rate through the PID.





**Graph 2**  
**SVE Extraction Point VOC Concentrations**  
 50 Tufts Street  
 Somerville, Massachusetts





Graph 3

Soil Vapor Monitoring Point VOC Concentrations 60 Tufts Street  
50 Tufts Street  
Somerville, Massachusetts









